

SOUTHERN TEXTILE BULLETIN

VOLUME 27

CHARLOTTE, N. C., THURSDAY, OCTOBER 30, 1924

NUMBER 9

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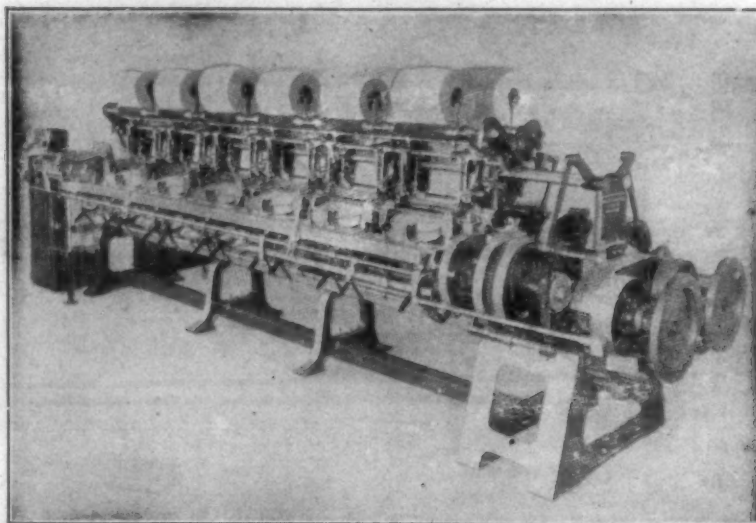
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SOUTHERN TEXTILE BULLETIN

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Changing Looms to Novelty Fabrics

SOME interesting reading would be furnished if it were possible to tabulate the mill equipment which has been "changed over" to run on new cloths, in the past year. The term "new cloths" here would refer to fabrics which the various mill men did not have in mind a few years ago—even a year ago. Undoubtedly a tabulation such as just mentioned, would reflect changes in the industry, startling, even though anticipated. While there is nothing specially new in this thought, it is of sufficient growing importance to warrant the most careful consideration in all manufacturing and selling centers, and promises to make this exaction to a merciless extent for the visible period ahead.

Perhaps they are wrong who say staples are "through;" perhaps the novelties and new fabrics represent a cycle just as the revolving of styles.

Time will tell. For the present, however, the aggressive manufacturer must lose sight of many of his old ideas of fabrics—and analyze fashions and fads—and keep one pace ahead of each.

The treasurer of a combed yarn cloth mill was seeking business on plain woven goods, presumably on the type of lawns. "I won't make broadcloths," he said, when propositions of this sort were offered. "Then you will have to be content with whatever few looms you can keep going," was the reply.

Perhaps this mill man is right; perhaps this is no time to enter the broadcloth business? Who knows? The facts are, however, that those who have put looms to making these goods, have not had much difficulty selling any production offered, particularly when the cloth was well woven and really looked the part of a broadcloth.

This situation is still true. One hears that a mill is starting to make broadcloths—and not long afterward that the production offered has been taken up. In some instances, this has been because only limited equipment was set aside for this purpose, but there are several noteworthy cases where mills have booked really large business on this fabric. Not infrequently when one wants to contract for broadcloth, it is necessary to go out and start a mill which has not made the fabric before.

Right now broadcloths seem to have possibility without limit, being applied for so many uses, and apparently usurping, entirely, the position of numerous other cloths. Is the broadcloth here as a permanent integer in the list of goods styles? Are the plain fabrics, replaced by this invader to continue subjugated?

There are some who really believe that the exceptional qualifications of broadcloth which make it extremely desirable, are responsible for a definite transition. What can be greater evidence of this conviction than the fact that there have been some deliveries sold to June?

Suppose the demand for broadcloths should suddenly become lukewarm, and then cold? Each time additional looms are assigned to add to this steadily increasing production, there is fresh occasion for the question. Well, that is the gamble. There are not many certainties in the dry goods trade today—and the risks here are no greater, probably less, than on something else. A few times, since the early indications of predominance, pronouncements of last rites over the silk-like English emigrant were in preparation. "About ready to pass away."

So thought the American mill owners, winking wisely—they knew when to leave a cloth alone. We don't know just how many of these same American mills are producing broadcloths today—but there are a great many, and the number is swelling. When the sub-counts entered the arena, predictions were they would kill the cloth. But the sub-counts sold—and the sales kept on as the cheapening process of cutting the count in ends and picks proceeded dangerously. All-carded species came next, some not even distantly related, though claiming kin—and they sold—and more are selling.

We have wandered a bit from the main subject, but there is much in this broadcloth narrative worthy of repetition. One of the largest handlers of imported merchandise of this description, said his business this year had been phenomenal—but he was making no money.

This is the other angle of the new trend. When competition is keen and price is more attractive than quality, the opportunity for profit

narrows if it doesn't entirely disappear. In the finished goods, converters complain that business is carried on by many just as is done in bleached muslins or other such low-down staple. The fact that constructions are not standardized, and sub-counts assume innumerable degrees, makes it impossible for the converter to know what a competitor's price really means. With the inability to learn the "full story" regarding cheaper quotations, a merchant may find his prospective customer with a little handicap advantage.

Successes which more than a few mills have had with artificial silk mixtures, this year, are indicative of other trends. Where it has been possible to do only limited business in ginghams, some box looms have been switched to check suitings, with some artificial silk in the pattern—and these have had a good market. Small orders, but steady repeats is the way one seller described this trade. From several parts of the country, wholesalers report they have been doing well with these artificial silk check suitings. They are good looking, giving the appearance of real value.

Artificial silk mixtures have been in fair demand in a number of types of fabrics. Some of the fine combed yarn mills have produced beautiful fabrics of this combination, which buyers could not resist. There are quite a few mills and selling houses where, in spite of the general dull market, a steady trade has been recorded for the past several months. Recalling this, it is probably best, at times, to qualify reflections of quiet business.

When wash goods converters generally were voicing despair, several mill representatives, with attractive lines of artificial silk stripe suitings and other such novelty artificial silk goods, did a fair business. This is no attempt to give any impression of large buying, but rather to make clear that buyers have been doing a little more than nibbling on certain classes of goods.

The artificial silk filled crepes of quality have given promise. Fancy crepes, with artificial silk decorations are regarded with favor by many. Here, mills have been able to demonstrate unusual designing weaving skill.

Many mills have installed acces-

sories to their machinery, or new equipment this year, to add to the elasticity of their plants—make them more flexible.

A mill man and selling agent must work fast, having decided upon a new style, on which good business is likely. The information can't remain quiet long, and then, numerous competitors are waiting for the chance to cut the count, to offer a substitute for less money.

The reverse twist shadow stripe warp sateen has been the second largest seller to the broadcloth. Another cloth which has proved its utility, the striped sateen, has survived the "cheapening process" and continues to be one of our most important items.

Plausible, indeed, is the contention that the eternal "something new" can be overdone. Already, buyers don't know what they want. They come to market, and are often confused by the constant additions. Moreover, this scheme of merchandising has probably done much to intrench the hand-to-mouth buying.

However, for the present, the novelty trend seems destined to be the avenue for keeping looms going. Something different—away from the staple.—Daily News Record.

Showing of Modern Cottons Asked.

The National Association of Cotton Manufacturers will take up, along with other business to be transacted at its annual meeting at the Copley Plaza Hotel in Boston on November 12 and 13, requests from a considerable number of stores through the United States that a traveling exhibit made up almost entirely of modern cottons be arranged and sent out.

These requests have resulted from the now noted showing of modern and ancient cottons made by the Association at the International Textile Exposition in Boston a year ago, and which has since been traveling about the country. By December 1, this exhibit will have been shown in no less than 34 cities in 23 States. It has attracted wide attention as an educational movement, and the committee in charge has received a number of letters from firms making very favorable comment on the exhibit.

Tapestry Yarn Printing

IN the manufacture of carpets, next in importance to the dyeing of yarns for the production of brussels or velvets grades, is the printing of yarn for the so-called tapestry brussels. Louis J. Matos, Ph.D., in *Dyestuffs*, states that this process is not well known to the general public, although it is of importance stair and floor carpets. It is a particularly interesting process, since the colored design is printed directly on each individual warp thread that is eventually to appear as the face of the carpet. In printing these warp threads, the space occupied by each colour is somewhat longer than it will appear in the finished carpet; this is necessary in order to allow for the proper "take-up" in weaving.

Yarn for axminster, brussels and other carpets is dyed in skeins or hanks, with such colours as the design calls for, usually not more than five for each pattern, hence the name "five-frame" body brussels, etc. With printed tapestries, however, the choice of colours is not limited, and may greatly exceed the above number.

A carpet design made for tapestry printing provides for the colouring of each single warp thread, with that portion of the pattern through which the thread passes. Each warp thread is printed in succession with all the colours belonging to it. It is therefore seen that every warp thread differs from every other warp thread, except where there is a repeat of the pattern.

Yarn printing requires the use of large wooden drums of special construction. These drums may be eight feet in diameter, and three or more feet in width. The yarn is evenly wound around these drums to the thickness of several layers, and to the surface of which the prepared colour is applied by means of a small colour-box that travels across the face of the drum and immediately under it. There is a box for each colour. In the colour-box is mounted a hard rubber wheel about eight inches in diameter, the printing face of which varies according to the width of stripe desired, usually about three-fourth in., and frequently less. This face is slightly concave like the runner of a skate, so as to conform somewhat to the curvature of the large drum. This concave permits a reasonably sharp edge to the printed stripe.

As this colour-box travels from side to side, the roller which is partially immersed in the printing paste, leaves a stripe of colour which is applied with such pressure as to force the colour paste through the several thicknesses of the yarn. According to the number of trips this roller makes, the stripe is printed either narrow or wide, the increased width being due to a slight motion given to the large drum, the control of which is always regulated by the printer, and strictly in conformity with the design board which is constantly in

view. In printing a "drum" each colour is applied in proper order; that is, all red stripes of one shade are printed in their proper places, then the blue, green, yellow, black, etc., until the particular warp threads for the same design are printed in the same manner. An error in printing a stripe means the rejection of that particular "drum" of yarn, which is generally utilized by dyeing black, and worked into plain carpets.

The colours used are ordinary acid dyestuff that are made into a thickened paste with wheat flour together with starches, such as sago, and frequently also with yellow dextrine. The flour is first made into a paste with water and a suitable antiseptic, usually salicylic acid. For fixing the colour on the wool, oxalic acid is generally employed, but some few days require small quantities of other acids, such as sulphuric, acetic or tartaric. Oxalic is preferred for the reason that it is low in cost, and has but little, if any, action on the printed yarn when the latter is steamed.

After the yarn is printed, it is removed from the drum and allowed to become "air dry" by hanging in a shed or other covered place where there is free access of air. It is then placed on large wooden frames that are diagonally strung with twine, and placed in the steam box, where it is subjected to the action of moist steam for about half an hour at low pressure. This steaming effects the actual dyeing of the yarn at the place where the colour is printed. If the steam is too moist, there may be danger of some of the printed colours running into those adjacent, thereby, spoiling the sharpness of outline desired in the finished carpet. This is guarded against by regulating the condition of the steam in the box, and also by making a selection of such dyes as possess a lower rate of solubility. For example, certain of the so-called level-dyeing colours, which owe their property of yielding extremely level shades to their slow absorption by the wool in an ordinary dyebath, would be found generally unsuitable for printing on account of running or "bleeding" before they become fixed on the wool under the influence of the steam. Relatively rapid dyeing colours are more desirable for this particular purpose.

Colour mixing for yarn printing is most particular work, and frequently a number of trials must be made by the foreman before the correct proportions are obtained. These must be first worked out with small quantities followed by full quantity for entire job, with each fully steamed, washed, dried, and compared with the standard before the batch is ready for use by the printer.

Sample swatches for this work are made by taking about 25 to 30 strands, about one yard length, of identically the same kind of yarn that is to be printed, tying them

at one end, and attaching this tied end to a hook, the loose or untied ends free to be held in the left hand, and with a brass or bronze spatula, spreading some of the printing colour to be tested upon it. Several strengths are made by diluting definite quantities of the full-strength colour with fresh flour paste.

Colour mixers are not in the habit of using straight dyes in making their stock colour pastes, but compound and designate them as "standards," taking whatever is needed from each "standard" to make the final printing colour. Then a final colour may contain as many as six standards in various proportions. This is important to understand, since it must be realized that when the final colour is delivered from the colour shop to the drum-room, the colour-mixer has lost control over it. The colour-mixer is not in the position of a dyer who can observe how shades are coming up. The colour-mixer and drum printer can only see the result of their work after the yarn has been steamed, washed, and dried. If the printed shade is "off," there is no remedy except to dye it black, since to run it in the pattern would spoil the entire effect. The colour-mixer must be continually testing every mix that made, not only of his standards, but also of the actual printing colours.

In well-regulated colour shops, immense numbers of these printed yarn swatches are made each week, and nearly all are preserved for future use, the record of the formula being entered in the formula book, or on cards, while the swatch is either pasted in large books for reference, or frequently put into the small pasteboard tubes, so that the cut and uncut ends of the yarn may be exposed for inspection.

In making up the final printing colour foreman established formula the same routine is followed, and in general, nothing is taken for granted. When a new dye is to be substituted for already in use, even greater care is necessary in making the tests, since it means that introducing a new dye, the formulas of possibly several hundred other colours will need to be changed.

As previously mentioned, in making trial batches of colour for yarn printing, a good working basis is to use eight ounces of dye per gallon of flour paste. Of course, a gallon is far too great a volume to make up for trial tests, but proportionately smaller quantities are convenient, say one pint or half pint.

The artist's design is made on "weavers' paper"; only one section of it being smooth board, usually 8 in. or 10 in. wide, and of such length to take an entire unit of the complete pattern. For durability and to permit cleaning, it is given a coat of shellac varnish. Each colour called for by the design is indicated by a number, actually painted in small figures on the design, and which correspond to the

one in the colour-mixer's formula book. It must not be supposed that the shade or tint actually painted on the design is the exact shade to be duplicated. The selection and blending of the shades are always made in the designing room from hundreds of printed yarn samples that are conveniently held in the paper tubes previously mentioned. These tubes permit the designer to group the colourings conveniently in his hand, so that he can see them more effectively and make a more satisfactory choice.

The design board above mentioned is attached to one side of the printing drum, fastened to the frame of which is a rule or straight-edge, permitting the printer to keep the warp thread that he is printing constantly in view. Each horizontal line on the design board corresponds to a notch on the large control gear which regulates the circumferential motion of the drum. One notch corresponds to one space, therefore, if a stripe is to be printed across the drum is revolved accordingly, while the colour-box makes corresponding trips from side to side, leaving its band of colour paste.

Preparation of the yarn before printing requires some attention to detail. Oily or greasy yarn cannot be successfully printed, because the oil acts as a resist to the colour, preventing proper penetration with resulting unevenness. The yarn must be scoured clean and rinsed free of all traces of soap; it is then ready for sulphuring in order to bleach it as white as possible. At best, sulphuring is disagreeable, but this process still remains the cheapest. Sulphur bleached yarn must be given a good wash with water containing a small amount of sodium bisulphate to neutralize any trace of free sulphurous acid that remain, and finally rinse well. These operations are necessary, otherwise traces of sulphurous acid in the yarn will react upon some of the colours.

The colour-shop is equipped with a battery of steam jacketed copper or monel metal pans in which the colours are compounded. These pans should be tilting so as to be readily emptied. The storage facilities for standards consist chiefly of large barrels, or preferably, covered stoneware crocks of various which the finished colour is sent to capacities, while the containers in the drum-room are generally large stoneware pitchers or jugs.

Besides the foregoing, the most important part of the colour-shop is the equipment for making the thickening. As a general rule it consists of two, sometimes three large wooden vats in which paddles revolve to keep the mass well stirred during the cooking. One of these vats is always in service, while the other is being charged with the flour to make a fresh batch. For a 500 gallon batch of flour thickening there is used the above quantity of water, and 300 pounds of sweet

flour that should test relatively high in gluten, and from 15 pounds to 18 pounds ammonia alum.

During the making of the paste, actual boiling should not be permitted, and also during the actual use of the thickening in the colour pans while compounding the colours, boiling is to be avoided. A temperature of 180 degrees to 190 degrees F. is sufficient.

Reference has been made to the use of flour that tests relatively high in gluten as being most desirable for colour thickening. A flour that is low gluten content does not make a satisfactory thickener, and it is for this reason that straight starches are not extensively used in carpet printing. Starches give a bulky thickening that does not possess the required body. A musty flour, or one that is a mixture of sound and musty flour, though costing less, is not suited, since there is a possibility of the presence of certain micro-organisms likely to cause the thick paste to liquify over night, and the batch is then of no value. This does not imply that some flours, unsuited for bread making, cannot be used in the colour shop. For this kind of textile printing, ordinary flour is quite suitable, but it is of little value when textile fabrics of comparatively fine textures are printed from engraved copper rollers.

After each colour is compounded, it is strained to remove any lumps of flour or other ingredients that might accidentally have escaped softening. The finished colours are used cold, warm colour pastes are likely to be thin in consistency, thereby yielding shades that are not full as when the colour is cold. On the other hand, the colours must be so stiff that they will adhere readily to the hard rubber printing wheel in the colour-box, and yet have such a degree of fluidity as to run slowly.

Vistra, a Rival to Artificial Silk

IN the Guardian of July 3 attention was drawn to "Vistra," an artificial fibre now being manufactured in Germany. It appears that the long endeavours of the former German dynamite concern, and particularly of the Kohn-Rottweil, A. G., prompted at first by the dearth of textiles during the war, have at last led to a result which may prove of epoch-making importance to textile manufacture, assuming the continuance of high raw material prices. It will, therefore, be of interest to give further details of this artificial fibre.

Vistra is a silky spun fibre made chemically on a similar principle to viscose. It is an entirely new development in textiles, and is, unlike artificial silk, not produced as yarn, but as fibre, which is subjected to a spinning process for manufacture into yarn. An interesting point is that no special machinery is required for the spinning and processing of the Vistra fibre, so that the cotton, woollen, or linen industry could all easily take up the spinning and manufacture of Vistra. Vistra yarns possess an excellent subdued lustre, are exceptionally soft and pure, and rather like spun

silk in character. Vistra has a particular advantage over artificial yarns in fineness of fibre, and is made in various types from 1 to 4 1-2 deniers. The advantage of the fine fibre lies in the various spinning systems, and the finished product has a softness and pliancy not before achieved. The types 2 1-2 to 4 1-2 deniers are chiefly utilized in the spinning of worsted yarns.

The finest counts are particularly suitable for fine cotton and spun-silk spinning. In spun-silk spinning yarns up to 200 metric counts and in fine cotton-spinning yarns up to 350 metric counts have already been produced without difficulty, which means that yarns have been spun of a fineness so far unattained in any other material. The structure of Vistra makes it particularly suitable for spinning. The absolute purity of the chemically-produced fibre eliminates certain processes in the various spinning methods, and not only saves waste but lowers production costs.

Unlike artificial silk, fibres in Vistra yarn do not lie parallel, but are twisted in spinning as in the case of natural fibres, and are different in character from artificial silk. They have not the metallic lustre of artificial silk, and can best be compared with spun silk. The uses of Vistra yarn are thus unlimited, particularly for the purposes where stress is laid upon a silky appearance of the finished goods. Experiments in the weaving of all kinds of cloth have been carried out in Germany, and excellent results have been achieved. Furnishings, woven goods, brocades, damask covers have been manufactured, and they all show a pleasing softness. Thick pile cloths of greater softness than woollen cloths have also been made.

Industries which turn out goods of a silky character have been experimenting lately with Vistra yarns. Velvet, plush, hosiery, damask, and furnishing factories, as well as weaving mills handling fine madderised cotton yarns, would seem to be most the promising users of Vistra. Goods made of Vistra are held to surpass those made of madderised cotton in lustre and softness. They never give the impression of having been made out of a substitute for any other material, but constitute something entirely new.

Vistra is cheaper than spun silk, and in large counts it is also cheaper than wool. Experiments so far carried out on durability, wear, and washing have given very favorable results. In the dry state its resistance to tear is greater than that of wool. As Vistra is manufactured of cheap raw materials, which are available in large quantities, the factor of price fluctuation should be eliminated once production is in full swing. It will, at any rate, never become so unpleasantly conspicuous as in the cotton, wool, and silk. It should be an easy matter to set up factories everywhere which could produce sufficient Vistra fibres to cover the needs of spinners and weavers. As regards dyeing and finishing, Vistra and Vistra cloths are treated in the same manner as viscose artificial silk.

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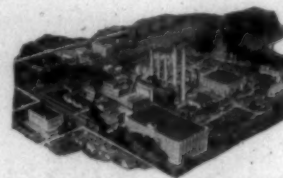
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Development of the High Speed Loom

Clare H. Draper, Treas., Hopedale Mfg. Co., Milford, Mass., before the Greenville Section of the American Society of Mechanical Engineers.

I AM speaking to you in place of my brother, George Otis Draper, to whom your invitation was originally tendered. It was my brother's suggestion to do this because I have had more to do with the mechanical development of the High Speed Automatic Loom manufactured by the Hopedale Manufacturing Company, of which I am treasurer and general manager.

I regret that I cannot rightfully call myself a mechanical engineer, but I have been for the last twenty-four years engaged in the practical designing, invention, experimenting, testing, manufacturing and selling single shuttle automatic looms and accessories. I suppose I have observed the operation of more trial devices of hundreds of inventors on looms of this type than any other living man. This will have to be my qualification.

Most interesting things have a history. The High Speed Automatic Loom has a very short one. Some two and a half years ago, I was engaged in the effort to sell our standard Nordray loom to a well known and successful cotton manufacturer only to learn that he was not interested in automatic looms of any kind, as he was a large user of plain looms and believed that he could get better results by their use. On being pressed for the reasons for this belief, he very kindly gave them to me in considerable detail.

Among these reasons were two of considerable weight in his mind, and at that time and under the circumstances, I was in no position to meet his arguments. It seems that he was very fortunate in being able to secure an ample supply of specially skilled plain loom weavers, and that with these weavers he was able to run his plain looms successfully at a speed considerably higher than was recommended for automatic looms. It is not surprising that I left this gentleman with the firm determination to destroy, if possible, what I might call his "alibi" by attempting to develop an automatic loom that would run as fast, or faster, and produce as much or more cloth than any plain loom on similar goods.

At about the same time, we had a regular sample Nordray loom operating in a mill, which was equipped with a certain type of anti-friction bearing. The manufacturers of this bearing, believing that the bearing alone would permit of high speed, obtained permission from us and from the mill management to try the experiment. The loom was therefore speeded up from a recommended speed of 160 picks per minute to 200 picks per minute. We heard that it was run for a week at that speed without satisfactory results and then reduced to normal speed.

I went to the mill to investigate, and was referred to the loom fixer. When I asked him his experience with the loom at high speed, he threw up both hands and certainly

gave me an ear full. His story, when separated from the excess of profanity, seemed to indicate that the loom had given him more trouble than the rest of the whole section. It was a story of breakage and repair; broken picker sticks, lug-straps, pick arms, parallels, worn shuttles, pickers, and binders.

I have long been familiar with the common experience that too high speed on looms gives less production than a lower speed, but this experiment gave me a reason for it. If a loom is weaving continually, it will make product in proportion to the speed, and if it makes less production, it will show that there has been stoppage for some cause. This fixer's troubles showed me that the cause of lessened production at high speed might well be the need of fixing rather than any increase in yarn breakage.

I had some ideas on how to overcome some of these troubles, and it was not long before we had a loom equipped with some of these devices running in our experiment room at 200 picks per minute. One day the loom banged off with the shuttle in the shed and on starting it up we found some of the teeth of the main driving gear broken off. This happening, together with the earlier experience, showed us that the jars and shocks of a loom are increased by high-speed, and that they must be reduced or provided against in some way. At this point, Mr. Jonas Northrop became interested in the matter and we have worked together on every problem involved ever since.

About a year later we sold 16-40-inch high-speed looms to a mill and these looms in continuous operation have proven the advantage of some of our first ideas, the impracticability of others. As fast as some device gave trouble we have attempted to design a remedy, and our present high-speed loom is the result to date. No doubt there is still room for improvement, and we shall continue to work along that line, but we feel that our present result is well worthy of investigation by possible loom purchasers.

At this mill, a count of broken warp threads made by the mill and not by ourselves, on these looms at 200 picks per minute, and another set running at 155, showed slightly less warp breakage on the high-speed looms than on the low speed looms in the same period of time. This, of course, was considerably less breakage per yard of warp woven at high speed. Such a result may seem fanciful and impossible. I can offer no explanation except that it may be that at high speed the yarn does not have time to break. However, that may be, I am convinced that using ordinary counts of yarn the warp breakage should not prevent a considerable increase of production.

At present, we believe that a forty inch loom should be able to stand a speed of between 180 and 200 picks per minute, depending upon the

weave or other mill conditions. We have run single looms on filling sateen, 38's warp and 30's filling, 112 picks per inch and 64 sley, as high as 235 picks per minute with no serious difficulty. We would advocate that the loom be started up at normal speed until the bearings have been "run in" and the power required brought down to a minimum.

If a speed of 200 picks does not seem particularly high to those who have seen or heard of plain looms running faster than this, it should be remembered that all of our experiments have been made with a standard automatic shuttle carrying an eight inch bobbin such as is used in the latest automatic looms at normal speed. Such a shuttle is heavy, hard to pick and difficult to stop, and it requires a larger shed opening and consequently a greater throw of the lay crank than high speed plain looms using a narrow, light shuttle with a short bobbin.

Now, what have we done to accomplish the result? Nothing radical. We have largely followed the dictates of common sense, and yet to do this required considerable thought and some invention. You can imagine perhaps, how many devices have been tried and found wanting, how many have shown good results, but which developed some insuperable difficulty in another direction; how many seemed finally good, but were superseded by something better.

A loom is perhaps the most un-mechanical machine in large use. It is not positive, as half of the time one of its most important elements, the shuttle, is flying through the shed under momentum and entirely without other control. It is all reciprocating parts working up and down, from side to side, and from front to rear and vice versa; all of these parts set up strains and vibrations and involve problems of momentum and inertia, the difficulties of which are increased about as the square of the speed.

To take care of these increased strains, we had originally a heavy sturdy loom frame. We made it still stronger by using one half inch bolts throughout in place of the standard 7-16 inch. When smaller parts broke, we redesigned or strengthened them.

To take care of the great shock of "banging off" when the shuttle is not properly boxed we adopted what has been known as an "anti bang" device. In this the loom frogs, instead of stopping the lay "dead," are removed some distance against heavy springs, and through connections to the whip roll move it bodily forward. This permits the warp threads to slackening around the trapped shuttle to prevent a "smash."

High speed usually means a tighter shuttle box to stop a faster moving shuttle. Great strains are caused by moving a shuttle out of a tight box. We have invented a device which permits the use of a loose box to pick from at high speed, by automatically obtaining a more efficient contact between the shuttle and its binder in boxing. We

have also increased the efficiency of the check strap for finally checking the picker stick.

The greater momentum of the lay and the cam and crank shafts overcomes the resistance of the ordinary loom brake. We have designed, therefore, a positive acting brake that will stop the loom in position for the weaver to draw in the warp threads.

High speed, of course, involves increased power, and a friction clutch that will hold. To operate such a clutch, it was necessary to design a convenient and easily operating shipper mechanism so that the weakest female operative could start the loom with ease.

The greater speed of the lay made the filling fork more difficult to control, this problem also seems to have been met. Increased momentum also adversely affected our warp stop-motion in increasing the blow of the feeler bar upon the drop wires, as well as the vibration of the parts which knock-off the shipper. We designed an entirely new warp stop-motion which runs quietly at half speed, is easy on the drop wires and has the added advantage of stopping the loom with the shuttle in the box on the shipper side of the loom, under easy control of the weaver.

Vibration of the loom increased the normal vibration of the warp beam. We overcame this by inventing a one-piece warp beam lock which holds the beam firmly in place.

The general vibration of the loom at high speed sets up internal strains which tend to cause breakage of parts and loosening of bolts; we have met this problem by letting the whole loom vibrate as a unit in special loom feet with limiting rubber bumpers. This permits the moving center of gravity of the whole machine to seek its proper position without too much resistance. At the same time the vibration of the mill floor is to that extent relieved.

It will be readily understood that many of these improvements found necessary for high speed looms should be—to a lesser degree—of advantage on low speed looms. As a matter of fact, we have adopted and shall use some of these improvements on every loom we sell.

Our company has of course applied for and taken out patents covering the more important features as they have been developed.

3—Development of high speed loom

It should be unnecessary to explain to mechanical engineers the advantages of running any machine at higher speed provided production is increased thereby and quality is not impaired. We are not in a position to give definite facts and figures on this question, but we have sold several large lots of these looms and they will all soon be in operation.

However, I might suggest that for a new mill, fewer looms should give the desired product at a saving in first cost of looms, building and equipment.

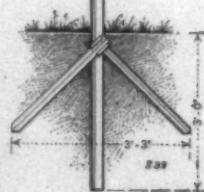
For a mill replacing old looms there should be either:

1—A saving in first cost of the
(Continued on Page 31)

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N. C. Knitting Industry Grows Steadily

The knitting mill industry, second only to the cotton mills in the textile growth in North Carolina, has steadily advanced in the State during the past two years, according to M. L. Shipman, Commissioner of Labor and Printing. Mr. Shipman issued figures on the industry which he compiled for Chapter LL of the biennial report of his department, which will be presented to the Governor and Legislature the first of January. The industry has developed in North Carolina to the stage where the State ranks third among the States of the Union in number of establishments and seventh in total value of its knit goods of all kinds produced, according to Mr. Shipman, who made his comparison using his latest figures.

One hundred and thirty-one knitting mills are listed by Mr. Shipman with a total capital stock of \$33,994,485, more than 875 per cent greater than 12 years ago. These mills are using annually 54,062,705 pounds of raw material and the value of the yearly output is given as \$29,058,702. Both of these figures represent substantial increases over two years ago. Twelve years ago the value of output was but \$6,082,560 and the raw material used 13,149,425 pounds.

The number of persons employed, average wage, ribbers, cards, horsepower—all have increased during the past two years. The number of spindles has slightly decreased. There has been one other decrease, the number of children having been reduced from 649 to 579.

By reason of the condition of the industry, according to the report and based on the latest available figures the State ranks third in number of establishments, sixth in the percentage of value added during the biennium by manufacture, seventh in total value of knit goods of all varieties, seventh in the average number of wage earners, second in the value and quantity of knit cotton goods other than hosiery, third in value and second in quantity of hosiery and second in value and quantity of half-hose.

Two years ago, 29,658 persons were dependent on the earnings of the operatives. Figures this year show that 35,986 persons are supported by the earnings of operatives.

Following are some of the paragraphs of Mr. Shipman's report:

"The knitting mills industry in the State has continued its progress during the past two years. Standing second at the time of the last biennial report, among the textile group in importance, that position has been held. The State now ranks third among those of the Union in the number of mills and seventh in total value of all knit goods manufactured.

"One hundred thirty-one mills are in operation with a total capital stock of \$33,994,485. The amount of raw material used annually is 54,062,705 pounds and the value of the yearly output is \$29,058,702. These figures compare favorably with two years ago.

"The principal products of the

mills are cotton hose, shirts, drawers, union suits and half hose. The State takes second rank in the value and quantity of knit cotton goods other than hosiery and third in value and quantity of hose. It stands second in value and quantity of half hose. It stands seventh in the average number of wage earners.

"Though the number of mills has decreased, the activity of those remaining has increased, so that the number of employees, value of products, raw material used and value of yearly output have shown increases. One hundred thirty-one mills are reported active.

"There are 208,948 spindles, 19,898 knitting machines, 2,417 sewing machines, 2,534 loopers, 2,948 ribbers and 1,040 cards in operation in the plants. Eleven thousand three hundred eighty-nine units of horsepower are used in the establishments. The number of employees has increased, there now being 4,154 men and 8,248 women employed as well as 579 children. This latter figure shows a decrease from 649 two years ago. The average highest and lowest wage paid men and women has increased. The men now earn \$5.60 a day maximum and \$2.01 minimum average. The women get \$3.48 maximum and \$1.45 minimum. The number dependent for support upon the earnings of the employees is 35,986."

Remove Extra Duty On Imported Cotton Cloth

In a decision of wide interest and importance to the cotton goods manufacturing and importing trades the Board of United States General Appraisers finds that imported cotton cloths woven with circular box looms are not subject to the additional duty of 5¢ per cent imposed by paragraph 906, act of 1922, on cottons woven with drop boxes. The Government sought in this case to have the extra duty fixed on the ground that Congress intended to levy the additional duty on cotton cloth having two or more colors or types of yarn in the filling, rather than on the method of producing same, and that the commercial and trade understanding of said provision in the United States should govern its classification.

Judge Weller, in a lengthy opinion disagreeing with the Government's interpretation of Congressional intent, points out that the language of the statute is descriptive and has reference to the manner of manufacturing the cloth, in the country of production, and that the clearly expressed language of said provision permits of no other than a literal construction thereof. Judge Weller then finds that cotton cloth woven with circular box looms and not with drop boxes is not subject to the additional duty imposed in paragraph 906 of the act of 1922.

This test case, which in view of its wide importance, will very likely be carried by the Government to

the United States Court of Customs Appeals in Washington, was argued before the Board of U. S. General Appraisers in the name of the E. Wiedeman Co., of New York. Allan R. Brown, of Strauss & Hedges, appeared for the protestants, while the Government was represented by special United States Attorneys Samuel M. Richardson, Oscar Igstaedter and Abraham H. Goodman of Assistant Attorney General William W. Hopkin's office.

"The testimony taken before the board, as well as the depositions of C. W. Armitage, manager of Armitage & Rigby, Ltd., and of Herbert I. Appleton, manager of one of the departments of the same firm—which depositions were taken abroad under a commission issued by this board—satisfactory shows" Judge Weller writes, "that gingham invoiced as 'Check Zephyr' were manufactured and shipped by said firm of Armitage & Rigby, Ltd., of Manchester, England, to the protestants, E. Wiedeman & Co., and that said gingham were woven on circular box looms and on drop boxes." In conclusion, the general appraiser then states:

"The protests are therefore sustained as to the goods invoiced as 'Check Zephyr' shipped by said firm of Armitage & Rigby, Ltd., to the protestants herein."

Uses of Art Silk

There are, broadly speaking, two fields for artificial silk in the textile industries—the manufacture of woven cloths and that of knitted fabrics. Within the last year or two the use of artificial silk on the looms, for fancy designs, as weft, or even as the staple fabric, has made such forward strides that it has almost obscured the fact that now, as before, the bulk of artificial silk is used on knitting machines. Long before Lancashire manufacturers dreamed of introducing the lustrous thread into their cotton fabrics the hosiery manufacturers of Leicester and Nottingham were busily producing stockinette and hosiery fabrics made entirely of artificial silk.

The forward strides in the weaving industry have not been without their parallel in the knitting section. Only development has been less sensational, but none the less remarkable. The coarse, faulty stockinette of old has been replaced by an even fabric almost as fine as pure silk. Artificial silk milanese, which is not, however, produced on a knitting machine, is as fine as the pure silk fabric, though the cost is at present too high for extensive consumption. The knitting industry was the first to recognize the possibilities of artificial silk, and today it is the largest user. Possibly the adaptability of knitting machines to the various textile fibres is to some extent responsible for this. The striking improvements in machinery and the great impetus given to all kinds of knitted fabrics for underwear as well as outer garments have also helped consumption.

According to some authorities, as much as 70 per cent of the total consumption of artificial silk in this country is taken up by the knitting

industry. Louis Blank, of L. Blank, Ltd., Conder Works, Manchester, manufacturers of all kinds of artificial silk, cotton, and wool knitted fabrics, stated in an interview that in his opinion the knitting industry would have a great influence on prices and qualities of artificial silk. "It may be taken for granted that the knitting industry is far and away the largest user of this textile. Now yarn used for knitting must above all be even, free from knots or fibre, since it is used in a fabric usually made entirely of artificial silk, and does not merely provide a fancy stripe or a weft with a cotton or woolen reinforcement. The knitting machine works circularly, on a similar principle as hand-knitting needles, and there is the same danger of dropped stitches. It is therefore essential that only the best yarn be used. Out of every 100 pounds of artificial silk produced only about 40 per cent is suitable for knitting, the remainder, second and third qualities, being used for weaving, where almost any grade can be used, in soft furnishings, tassels, as well as for twisting for the jumper trade. This is one of the reasons why artificial silk is not likely to come down to the price level of cotton in the near future."

Mr. Blank sounded a note of warning as regards imports of artificial silk stockinette from Germany, France, and Switzerland, where fabrics are generally sized, a process which produces a heavy material but causes it to fall into holes once it is washed, when the size dissolves in water. Buyers who imagine they can obtain cheaper products abroad will soon make this discovery, but the result is not only a temporary loss of business to British manufacturers. It undermines the prestige of artificial silk stockinette. Reliable makes of British artificial silk stockinette are entirely free from size, but they have plenty of body and a particularly good silky finish.

Mr. Blank was good enough to show our representative round the works. Artificial silk arrives in hank, and by means of up-to-date machinery it is reeled and wound, and then knitted, dyed and finished.

As machinery for producing stockinette is generally circular, the fabric is tubular and can be made to any required width. This is of great advantage to the maker-up, since very little seaming or stitching is needed. The fabric is made in various widths and weights from 10 pounds to 50 pounds a piece. At present Messrs. Blank's works turn out 8,000 pounds of artificial silk fabric a week, and some 4,000 pounds of various mixture and plated fabrics in artificial silk, wool and cotton.—Manchester (England) Guardian.

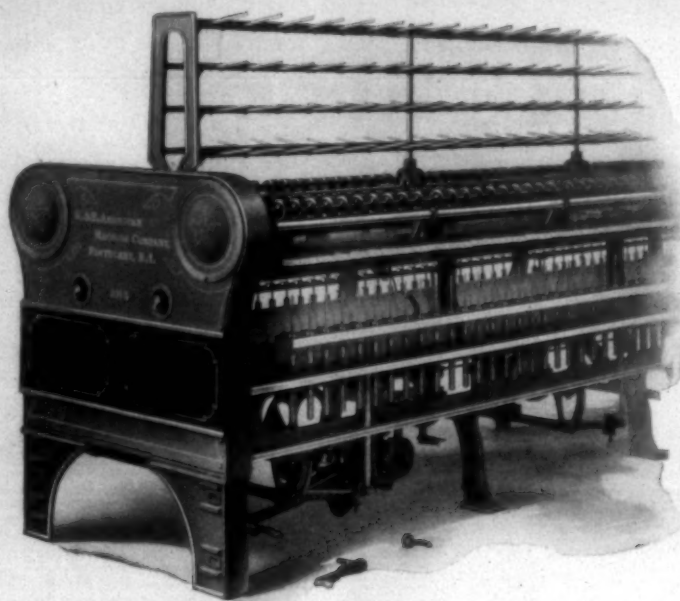
Italian Cocoon Crop Increases.

The 1924 silk cocoon crop in Italy has been very satisfactory, the yield being estimated in local sources at 50,000,000 kilos (kilo=2.2046 pounds) of fresh cocoons as compared with 42,580,000 kilos in 1923, according to report to the Department of Commerce from Vice Consul Lioni at Milan. The season was favorable, and the quality of the yield is considered superior to that of last year.

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The Care of Gears

All gears depend for their action and design upon the principle that the contact surfaces of the teeth were so shaped that rolling contact and action took place between the driving and the driven tooth surfaces.

This simply means that a pair of gears which had perfect design and machining finish and which were perfectly mounted and operated under ideal conditions would have their surfaces in perfect rolling contact during all their action.

This condition is of course only approximated in actual practice ever in very carefully made and set gear trains. There are practically no pure cases of real rolling friction. A certain amount of grinding of one tooth on another is present in any set of gears due to individual minor peculiarities of different teeth acting on one another as they meet in meshing together.

Another type of grinding is caused by uniform but improper machining of the gear's teeth or by an improper setting of the gear on the driving shaft. Either of these conditions produce a somewhat similar wear on all teeth which is different from the first case in that it is the same kind and degree of wear for all teeth and does not vary in kind and amount because of individual peculiarities of the teeth.

No matter what the cause of failure to approximate rolling contact may be the result is the same. In all cases wear is taking place with a consequent loss in power and operating efficiency. The most important consideration, however, is that undue wear shortens the life of a set of gears and that as the wear becomes greater between the sets of meshing teeth that the operating conditions get farther and farther from that of pure rolling contact and that consequent greater and greater wear will follow.

Noise in gear operation is always a proof of gear wear. This does not mean that all gears that run under load silently are operating under perfect conditions but it usually means that operating conditions are not vitally wrong.

The trouble is that a small amount of noise which is always the signal of wear often passes unnoticed and that conditions may gradually become serious without the notice of the operator the machine on which the gears are mounted.

An operator who is working around a machine constantly becomes oblivious to the regular noises of the machine. If any unusual noise develops the operator's ear detects it at once but when a set of gears are humming and the wear and noise is gradually increasing from week to week the change is so gradual that it makes no impression on the operator's hearing and the first indication of trouble is the grinding out of a tooth or the stripping of the whole gear with consequent trouble and delay.

It is because of these minor imperfections and the difficulty of obtaining good rolling contact that it is so necessary to minimize the sliding action which replaces any failure of rolling action by the best

means of lubrication. If the surfaces of two sets of gear teeth are sliding on each other as they operate the wear will depend directly on the friction developed.

This friction in turn is a product of the pressure between the surface which is a fixed quantity for a given set of conditions of power transmission and upon the coefficient of friction between the two surfaces.

It will thus be seen that the wear depends entirely on the coefficient of friction and for a given set of gears this may be said to depend entirely on the method and quality of lubrication.

The best thing to do for a given set of gears is to find out from the makers of the machine just what they recommend in the way of lubrication both as to kind and type of lubricant and as to the method and frequency of application.

In general it may be said that the closer a set of gears can be maintained to the conditions of operating in an oil bath the better. Of course this is impossible except where an oil tight housing is possible as part of the design of the machine but if gears are exposed they should have all the lubrication they will take without throwing the lubricant.

High speed gears with finely finished surfaces may as a general rule be said to require a high grade light machine oil. The clearances between surfaces of a closely fitted set of gears is very small and if an adequate film of lubricant is to be maintained between the operating surfaces the oil must be easy flowing and have high lubricating properties for a comparatively thin film.

On the other hand a set of gears, transmitting more power perhaps at a lower speed of revolution, require an oil with heavier body as while the clearances are not liable to be as slight and therefore a quick flowing oil is not so necessary the pressure of transmission of so much power will squeeze out a light flowing or thin oil and one with a heavier body is necessary to maintain an adequate lubricating film under this condition of pressure.

The benefit of correct gear lubrication may be listed something as follows: Lessening of wear between teeth, lessening of wear on adjacent parts, consumption of less power to drive and therefore more efficient operation, noiseless operation, less vibration and longer gear life with more satisfactory operating conditions and the economy of longer life and freedom from breakdown.—Fibre and Fabric.

Seek to Improve Ceara Cotton.

A copy of regulations recently formulated by the Exporters' Center of Ceara for the classifying, weighing, pressing, and warehousing of cotton has been received by the Department of Commerce from Vice Consul Easton, Pernambuco. This is an effort to co-operate with the movement to overcome defects in Brazilian cotton which are the result of faulty packing and classification. A copy of these rules will be made available for inspection to persons applying to the Textile Division, Bureau of Foreign and Domestic Commerce, Washington.

Organize Southern Section of Textile Chemists and Colorists

The first meeting of the recently organized Southern Section of the American Association of Textile Chemists and Colorists was held at the Imperial Hotel, Greenville, S. C., on Friday of last week. An informal dinner was served and officers of the new section were elected.

Brown McMahon, vice-president of the Judson Mills, Greenville, was elected chairman of the Southern section. Other officers were John H. Cary, Anderson, vice-chairman; H. W. Ormond, Union Bleachery, Greenville, secretary, and P. F. O'Neil, Chattanooga, treasurer.

E. H. Killheffer, of the Newport Chemical Works, presided at the meeting and explained the purpose of the meeting. He stated that there was a large field for such an organization in the Southern States and predicted that a large membership would be secured when the dyers and finishers became familiar with the purpose of the organization.

A very interesting address, "The Wet Processing of Textiles," was delivered by Prof. Charles S. Doggett, of the textile department of Clemson College.

It was decided to hold the next meeting of the Association in Charlotte in January.

The American Association of Textile Chemists and Colorists already has four local sections, centered in Boston, Providence, New York and Philadelphia. It is believed that a very active and usual section can be maintained in the South and with a view to this end, the co-operation of all Southern textile men who are interested in dyeing, bleaching and finishing operations is sought by the association.

Those present at the meeting in Greenville were:

Malcolm McKenzie, Cramerton, N. C.; E. K. Compton, Charlotte, N. C.; Henry E. Quinstead and J. F. Tom, Atlanta, Ga.; A. R. Thompson, Jr., Charlotte, N. C.; F. Mungall, Pell City, Ala.; A. H. Mungall, Lindale, Ala.; Thos. G. Mungall, Montgomery, Ala.; L. E. Wooten, Charlotte, N. C.; A. P. Howes, New York; R. W. Arrington, Greenville; W. R. Cathcart, New York; C. D. Blackwelder, Greenville; Charles S. Doggett, Clemson College, S. C.; R. W. Phillip, Atlanta, Ga.; Y. R. Viena, Spartanburg, S. C.; Tom Taylor, Newnan, Ga.; Hugh L. Siever, Keyser, W. Va.; R. F. O'Neil, Chattanooga, Tenn.; John H. Gary, Anderson, S. C.; James A. Watt, Loudon, Tenn.; H. A. Rodgers, Chattanooga, Tenn.; C. H. Dillard and J. E. Moore, Charlotte, N. C.; Charles H. Stone and E. W. Sweet, Charlotte, N. C.; W. F. Wyatt, Raleigh, N. C.; J. D. Hunter, Charlotte, N. C.; V. D. Porter, Talladega, Ala.; Ernest F. Leftvich, Greenville; John H. Hennessy, Philadelphia; J. S. Grant, Cincinnati; Frank E. Howard, Lyman, S. C.; L. S. Little, Lyman, S. C.; Fred H. Learned, Newton Upper Falls, Mass.; H. B. Hooper, Providence, R. I.; E. H. Aimekley, New York; E. H. Kill-

heffer, Passaic, N. J.; Brown Mahon, Greenville; John Hartley, Charlotte, N. C.; John F. Oats, Fort Mill, S. C.; D. G. Wallace, Columbus, Ga.; M. T. Johnson, Greenville, S. C.; David Clark, Charlotte, N. C.

British Cottons Not "Dumped"

Manchester Chamber of Commerce, Manchester, England, has issued a "memorandum of the views of Manchester buyers with regard to the agitation in United States of America for an increase in the American customs tariff on fine goods" which holds that there is no foundation for the suggestion that British suppliers had been "dumping" fine goods in the American market, and also expresses the opinion "that any increase of the tariff on fine goods would fall on the consumer without in any way benefiting United States manufacturers." The text of the memorandum is as follows:

Text of Memorandum

"At the present time there is no foundation whatever for the suggestion that British suppliers are 'dumping' fine goods in the American market. Practically the whole of the cotton goods exported by Lancashire to the American market are made from Egyptian cotton, and the statements made in U. S. A. about mills selling their products at a loss are only applicable to mills which make goods from American cotton. Our general experience is that in the U. S. A. there is a failure to realize the sharp division which exists between the Egyptian cotton section of the industry, and that which is concerned with American cotton. Every person in the Lancashire industry can substantiate that the two sections are for all practical purposes entirely separate, and it by no means follows that what obtains in the one, also obtains in the other. The Egyptian section is certainly not running at loss at the present time.

"In support of this statement it is interesting to quote the dividend announcement of the Fine Cotton Spinners and Doublers which was made recently. This concern, leaders in the Egyptian section, announced a dividend of not less than 14 per cent and such profits could not have been made if there had been any substantial policy of prices quoted to American customers show that they are to all interests and purposes at an identical level.

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Carding and Spinning

By George M. Ivey

Copy Revised for Third Edition.

(Continued from last week)

TROUBLES ABOUT DRAWING FRAMES

Irregular or Cut Drawing.—The causes of this are many, but probably one of the most frequent is lack of oil. This may not be the immediate, but the remote cause. We have known drawing frames run for many years with irregular oiling until the saddles had worn to an exact fit on the rollers. The least little wrench to one side or another would cause the saddles to bind, and momentarily stop or retard the roller. Where shell rollers are used (and they are much better), lack of oil is much more common, and the overseer should have the arbors removed every Saturday evening, and stay out until Monday, when they are oiled and replaced. The trouble consequent on cut-roll drawing is much too serious to omit any precaution for preventing it.

Cut drawing may result from bad rollers, either because they are improperly covered, or because they need varnishing. The varnishing should be done frequently, and it must not be assumed that the operative in charge is a competent judge as to when rollers should be replaced.

Almost every overseer has recipes for making varnish, some of which are good, and some bad. The following is used in the largest mill in Massachusetts and is a good one:

Acetic Acid	1 qt.
Gum Arabic	4 oz.
Glue	8 oz.
Oil of Origanum	2 spoonsful
Chrome Green	As needed

Vinegar is not as good as acetic acid, but will do. Green or blue is a better color than red or yellow, as it is in greater contrast with the color of the leather, and thin places can be more quickly detected. The oil of origanum is used to make the varnish dry quickly. Any volatile oil will do, as oil of cloves or oil of peppermint.

Cut drawing may be caused by too great a draft between the front roller and the calender roll. This should be just enough to keep the sliver from bagging, and just a little bagging is better than the opposite extreme. If this trouble is suspected, stop the frame, press the sliver by hand until it bags, then start it. If the slack is taken up quickly, it is evidence of too much draft. The trouble is often occasioned by damp weather. All mill men know that during damp weather the work becomes heavy. A great many assume that this is because of the additional weight of water absorbed. This, however, is responsible for only part of it. When the fibers get the least damp, they have a tendency to stick together, and become harder to draw. The draft is thus reduced a little at every process, and consequently the work becomes heavy. At the drawing frame, the trouble is aggravated on account of the cotton having to be drawn through the small hole in the trumpet. This makes the drawing bag between the front and the calender roller, and the carder will change the draft a little. When the atmosphere becomes dry, he will probably forget about it, and the consequence will be an injurious draft.

Where metallic rollers are used, a very small piece of leaf, seed or piece of broom-straw, getting wedged into one of the flutes will cause cut work. It is absolutely necessary to keep the rollers clean, and each operative should be provided with a stiff brush for that purpose.

Another cause for cut or stained drawing, is filling the cans too full. When they are so full that there is decided friction against the coiler, strained work is sure to result. This is also true at the card. Excessive speed, causing top rollers to jump, or a bad arrangement of back cans, causing the sliver to be strained before reaching the frame, will also cause uneven work. An excellent way to test the quality of drawing, is to take a few feet and tightly twist it. If it twists evenly, it is uniform. If it is not uniform, the twist will run into thin places, and can readily be detected by the eye, or by running it through the fingers.

Electricity.—As in the card, this will give a great deal of trouble at times, and the same remedies will apply. The writer had one case where all remedies failed. In this particular mill, the sliver would stick to the cans, and become so tangled that it was impossible to use it. Tin cans would probably have stopped the trouble, but that was impracticable. As a last resort, a half-inch steam pipe was run under the coilers just back of the cans. This helped matters a great deal, but the trouble was never entirely eliminated.

CALCULATIONS

The calculations on a drawing frame are for production and draft. For getting the production, we multiply the circumference (diameter multiplied by 3.1416) by the speed per minute, the minutes in an hour,

the hours in a day, and the weight of a yard of sliver. This is divided by 36 (inches in a yard) \times 7000 (grains per pound). This quotient is the theoretical production, from which 20 per cent should be deducted for necessary stops. This is the production for one delivery, and must be multiplied by the number of deliveries to get the total production.

Example.—If the front roller is making 325 revolutions per minute, the sliver weighs 60 grains, and the front roller is 1 $\frac{1}{4}$ (1.375) inches in diameter, what is the production in 10 hours?

$$\frac{1.375 \times 3.1416 \times 325 \times 60 \times 10 \times 60}{36 \times 7000}$$

$$36 \times 7000$$

This works out 200, and 200 less 20 per cent is 160, which is the production in pounds at front roller. Since there is a slight draft between front rolls and calender rolls (1.034), the production at calender rolls would be $160 \times 1.034 = 166$ pounds.

Production Table—Drawing Frames

Pounds in 10 Hours at Calender Rolls.
Front Roller 1 $\frac{1}{4}$ Inches.

Twenty per cent deducted for changing cans, cleaning, oiling, and stopping.

This table is figured for frames made up of four delivery heads. An additional ten per cent should be deducted for frames of six delivery heads.

R.P.M.	Weight in Grains of One Yard of Sliver										R.P.M.
of Front	35	40	45	50	55	60	65	70	75	80	of Front
Roll	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Roll
175	52	60	67	74	82	89	97	104	112	119	175
200	60	68	77	85	94	102	111	119	128	136	200
225	67	77	86	96	105	115	124	134	143	153	225
250	74	85	96	106	117	128	138	149	159	170	250
275	82	93	105	117	129	140	152	164	175	187	275
300	89	102	115	128	140	153	166	179	191	204	300
325	97	110	124	138	152	166	179	193	207	221	325
350	104	119	134	149	163	178	193	208	223	238	350
375	112	127	143	159	175	191	207	223	239	255	375
400	119	136	153	170	187	204	221	238	255	272	400
425	126	144	162	181	199	217	235	253	271	289	425

The above table is for frames with leather-covered rollers. If metallic rollers are used, the production will be from 15 to 25 per cent greater, depending on the weight of the sliver. The lighter the sliver; the greater will be the difference.

Draft.—The rule for calculating the draft of a drawing frame is the same as for cards, viz., consider the back roller the driver; multiply the diameter of the delivery roller (calender) and all the driving gears, and divide the product by the product of the diameter of the receiving roller (back roller), and all the driven gears. As we went into this somewhat fully in reference to the cards, we will not go into the calculations in detail.

The draft of a drawing frame is in four places; between the back and third roller, the third and second, the second and first, or front, and between the front and calender. The total draft is the product of these, and not the sum, as many erroneously suppose. It is customary to have the greater part of the draft between the front and second rollers. The reason for this is that where, say slivers enter the back of the machine, they form a thick strand. If much draft were wanted here, it would not only require very heavy weights on the rollers, and a great deal of power to turn them, but the draft would probably be irregular. For this reason a very slight draft is used, about 1.25; between the next two rollers, the strand is not so heavy, and may be more easily drawn. The draft here is, say, 1.35. Between the next two rollers a maximum draft is used, generally between 3 and 4, say, 3.50. From the front to the calender roller is a very slight draft of about 1.03. Taking these figures, and multiplying them, we find the total draft to be $1.25 \times 1.35 \times 3.50 \times 1.03 = 6.07$.

Table of Draft Constants for Drawing Frame

Make of Frame	Back		Compensating		Second		Constant	Constant
	Roller	Gear	Roller	Gear	Roller	Gear	Leather	Metallic
Whitin	69	43	42	---	---	---	282.19	258.74
Whitin	70	43	42	---	---	---	286.29	262.49
Whitin	71	43	42	---	---	---	290.38	266.24
Saco-Lowell	40	---	---	---	---	---	172.4	---
Saco-Lowell	60	---	---	---	---	---	258.5	---

(Continued on Page 23)

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Estimate Cotton Yield At 12,675,000 Bales

Washington, Oct. 26. — Improvement of the cotton crop during the period October 1 to 18, figured at 176,000 bales, brings the latest forecast of the Crop Reporting Board, United States Department of Agriculture, to 12,675,000 bales. The report of the board attributes this improved condition to the warm, dry weather during the period, which made conditions exceptionally favorable for cotton, especially in the eastern portion of the belt where there was too much rain in September.

The report of the board on October 8 indicated that excessive rains which checked the opening of bolls and caused the rotting of lint and sprouting of seed were responsible for a decline of about 100,000 bales from the forecast of cotton production based on condition on September 16. The forecast, based on condition of the crop as of October 1, was 12,499,000 bales. The September 23 report of the board, based on conditions as of September 16, set forth that drouth in the cotton belt materially affected the growing crop.

In the northern portion of the belt the plants on October 18 were still growing and fruiting and showed improvement, but in the southern part the season was too far advanced for the favorable weather to materially affect the size of the crop. Picking and ginning progressed rapidly under ideal conditions; there was little or no interference from rain in any part of the belt.

Some cotton has been saved that was previously considered doubtful and the report of the Census Bureau shows 7,600,826 running bales (counting round as half bales) ginned from the 1924 crop prior to October 18, compared with 6,409,391 bales for 1923 and 6,978,821 bales for 1922.

Ginnings were apparently greater than had been anticipated. The previous report showed 4,525,520 running bales ginned prior to October 1.

The areas where improvement occurred were North Carolina, South Carolina, Tennessee, Arkansas and northwest Texas. In Oklahoma the crop shows little change. In North and South Carolina may bolls punctured by the weevil opened satisfactorily, but the lint was of inferior grade.

A moderate decrease from the previous estimates was reported in Georgia and Florida, where correspondents of the board have had a chance to check up with the production. Picking is practically completed in the southern parts of Georgia, Alabama, Mississippi and eastern and southern Texas. In the balance of the territory it has progressed satisfactorily, except where there was insufficient labor. There has been some complaint on this account in northwest Texas, Oklahoma, Arkansas, North Carolina and Tennessee.

Condition of Crop.

The board estimated the condition of the crop on October 18 was 54.7

CLARK'S TABLES

of Manufacturing Margins on Knitting Yarns

Tables below are compiled by deducting from net returns from yarn sales the total cost of cotton.

NET RETURNS for weaving yarns are selling prices less 5 per cent commission, 3 per cent discount and freight.

TOTAL COTTON COST is price of cotton with cost of 15 per cent waste added or is the cost of cotton per pound of yarn.

MANUFACTURING MARGIN is **NET RETURNS** less **TOTAL COTTON COST** and is the amount that is left to cover wages, salaries, power, supplies and all other overhead.

TO USE TABLES—Find selling price of yarn on top line and price of cotton on side and the figure in square caused by their intersections is the manufacturing margin.

(Copyright by Clark Publishing Co.)

Table No. 1

Cost of Cotton	Cotton Plus Waste	Price of Yarn															
		Price of Yarn Less 5% & 2% & .65 frt.															
		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
12	14.12	13.51	14.42	15.34	16.25	17.16	18.08	18.99	19.90	20.81	21.73	22.64	23.55	24.46	25.37	26.28	27.19
13	15.29	12.34	13.25	14.17	15.08	15.99	16.91	17.82	18.73	19.64	20.56	21.47	22.38	23.29	24.20	25.11	26.03
14	16.47	11.16	12.07	12.99	13.90	14.81	15.73	16.64	17.55	18.46	19.38	20.29	21.20	22.11	23.02	23.93	24.85
15	17.65	9.98	10.89	11.81	12.72	13.63	14.55	15.46	16.37	17.28	18.20	19.11	20.02	20.93	21.84	22.75	23.67
16	18.82	8.81	9.72	10.64	11.55	12.46	13.38	14.29	15.20	16.11	17.03	17.94	18.85	19.76	20.67	21.58	22.50
17	20.00	7.63	8.54	9.46	10.37	11.28	12.20	13.11	14.02	14.93	15.85	16.76	17.67	18.58	19.49	20.40	21.32
18	21.18	6.45	7.36	8.28	9.19	10.10	11.02	11.93	12.84	13.75	14.67	15.58	16.49	17.40	18.31	19.22	20.14
19	22.35	5.28	6.19	7.11	8.02	8.93	9.85	10.76	11.67	12.58	13.50	14.41	15.32	16.23	17.14	18.05	18.97
20	23.53	4.10	5.01	5.93	6.84	7.75	8.67	9.58	10.49	11.40	12.32	13.23	14.14	15.05	15.96	16.87	17.79
21	24.71	2.92	3.83	4.75	5.66	6.57	7.49	8.40	9.31	10.22	11.14	12.05	12.96	13.87	14.78	15.69	16.61
22	25.88	1.75	2.66	3.58	4.49	5.40	6.32	7.23	8.14	9.05	9.97	10.88	11.79	12.70	13.61	14.52	15.44
23	27.06	.57	1.48	2.40	3.31	4.22	5.14	6.05	6.96	7.87	8.79	9.70	10.61	11.52	12.43	13.34	14.26
24	28.23		.31	1.23	2.14	3.05	3.97	4.88	5.79	6.70	7.62	8.53	9.44	10.35	11.26	12.17	13.09
25	29.41			.05	.96	1.87	2.79	3.70	4.61	5.52	6.44	7.35	8.26	9.17	10.08	10.99	11.91
26	30.59					.69	1.61	2.52	3.43	4.34	5.26	6.17	7.08	7.99	8.90	9.81	10.73
27	31.76						.44	1.35	2.26	3.17	4.09	5.00	5.91	6.82	7.73	8.64	9.56
28	32.94							.17	1.08	1.99	2.91	3.83	4.73	5.64	6.55	7.46	8.38
29	34.12								.81	1.73	2.64	3.55	4.46	5.37	6.28	7.20	8.11
30	35.29									.56	1.47	2.38	3.29	4.20	5.11	6.03	6.94
31	36.47										.29	1.20	2.11	3.02	3.93	4.85	5.76
32	37.65											.02	.93	1.84	2.75	3.67	4.58
33	38.82													.67	1.58	2.50	3.41
34	40.00														.40	1.32	2.23
35	41.18															.14	1.06

Table No. 2

Cost of Cotton	Cotton Plus Waste	Price of Yarn															
		Price of Yarn Less 5% & 2% & .65 frt.															
		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
16	18.82	24.33	25.24	26.15	27.06	27.97	28.88	29.79	30.71	31.63	32.54	33.45	34.36	35.27	36.18	37.10	38.01
17	20.00	23.15	24.06	24.97	25.88	26.79	27.70	28.61	29.53	30.45	31.36	32.27	33.18	34.09	35.00	35.92	36.83
18	21.18	21.97	22.88	23.79	24.70	25.61	26.52	27.43	28.35	29.27	30.18	31.09	32.00	32.91	33.82	34.74	35.65
19	22.35	20.80	21.71	22.62	23.53	24.44	25.35	26.26	27.18	28.09	29.01	29.92	30.83	31.74	32.65	33.57	34.48
20	23.53	19.63	20.53	21.44	22.35	23.26	24.17	25.08	26.00	26.92	27.83	28.74	29.65	30.56	31.47	32.39	33.30
21	24.71	18.46	19.35	20.26	21.17	22.08	22.99	23.90	24.82	25.74	26.65	27.56	28.47	29.38	30.29	31.21	32.12
22	25.88	17.27	18.18	19.09	20.00	20.91	21.82	22.73	23.65	24.57	25.48	26.39	27.30	28.21	29.12	30.04	30.95
23	27.06	16.09	17.00	17.91	18.82	19.73	20.64	21.55	22.47	23.39	24.30	25.21	26.12	27.03	27.94	28.86	29.77
24	28.23	14.92	15.83	16.74	17.65	18.56	19.47	20.38	21.30	22.22	23.13	24.04	24.95	25.86	26.77	27.69	28.60
25	29.41	13.74	14.65	15.56	16.47	17.38	18.29	19.20	20.12	21.04	21.95	22.86	23.77	24.68	25.59	26.51	27.42
26	30.59	12.56	13.47	14.38	15.29	16.20	17.11	18.02	18.94	19.86	20.77	21.68	22.59	23.50	24.41	25.33	26.24
27	31.76	11.39	12.30	13.21	14.12	15.03	15.94	16.85	17.77	18.69	19.60	20.51	21.42	22.33	23.24	24.16	25.07
28	32.94	10.21	11.12	12.03	12.94	13.85	14.76	15.67	16.59	17.51	18.42	19.33	20.24	21.15	22.06	22.98	23.89
29	34.12	9.03	9.94	10.85	11.76	12.67	13.58	14.49	15.41	16.33	17.24	18.15	19.06	19.97	20.88	21.80	22.71
30	35.29	7.86	8.77	9.68	10.59	11.50	12.41	13.32	14.24	15.16	16.07	16.98	17.89	18.80	19.71	20.63	21.54
31	36.47	6.68	7.59	8.50	9.41	10.32	11.23	12.14	13.06	13.98	14.89	15.80	16.71	17.62	18.53	19.45	20.36
32	37.65	5.50	6.41	7.32	8.23	9.14	10.05	10.96	11.88	12.80	13.71	14.62	15.53	16.44	17.35	18.27	19.18
33	38.82	4.33	5.24	6.15	7.06	7.97	8.88	9.79	10.71	11.63	12.54	13.45	14.36	15.27	16.18	17.10	18.01
34	40.00	3.15	4.06	4.97	5.88	6.79	7.70	8.61	9.53	10.45	11.36	12.27	13.18	14.09	15.00	15.92	16.83
35	41.18	1.97	2.88	3.79	4.70	5.61	6.52	7.43	8.35	9.27	10.18	11.09	12.00	12.91	13.82	14.74	15.65
36	42.35	.80	1.71	2.62	3.53	4.44	5.35	6.26	7.18	8.10	9.01	9.92	10.83	11.74	12.65	13.57	14.48
37	43.53		.53	1.44	2.35	3.26	4.17	5.08	6.00	6.92	7.83	8.74	9.65	10.57	11.47	12.39	13.30
38	44.71			.26	1.17	2.08	2.99	3.90	4.82	5.74	6.65	7.56	8.47	9.38	10.29	11.21	12.12
39	45.88				.91	1.82	2.73	3.65	4.57	5.48	6.39	7.30	8.21	9.12	10.04	10.95	11.86
40	47.06					.64	1.55	2.47	3.39	4.30	5.21	6.12	7.03	7.94	8.86	9.77	10.68
41	48.23						.38	1.30	2.22	3.13	4.04	4.95	5.86	6.77	7.69	8.60	9.51
42	49.41							.12	1.04	1.95	2.86	3.77	4.68	5.59	6.51	7.42	8.33
43	50.59								.77	1.68	2.59	3.50	4.41	5.33	6.24	7.15	8.06
44	51.76									.51	1.42	2.33	3.24	4.16	5.07	5.98	6.89
45	52.94										.24	1.15	2.06	2.98	3.89	4.80	5.71
46	54.12												.88	1.80	2.71	3.62	4.53
47	55.29													.63	1.54	2.45	3.36
48	56.47														.36	1.27	2.18

Table No. 3

Cost of Cotton	Cotton Plus Waste	Price of Yarn																			
		Price of Yarn Less 5% & 2% & .65 frt.																			
		65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81			
20	23.53	35.12	36.04	36.95	37.86	38.78	39.69	40.60	41.51	42.42	43.33	44.24	45.15	46.06	46.97	47.90	48.81	49.70	50.61	51.52	52.43
21	24.71	33.94	34.86	35.77	36.68	37.60	38.51	39.42	40.33	41.24	42.15	43.06	43.97	44.88	45.79	46.70	47.61	48.52	49.43	50.34	51.25
22	25.88	32.77	33.69	34.60	35.51	36.43	37.34	38.25	39.16	40.07	40.98	41.89	42.81	43.72	44.63	45.54	46.45	47.36	48.27	49.18	50.09
23	27.06	31.59	32.51	33.42	34.33	35.25	36.16	37.07	37.98	38.89	39.80	40.71	41.63	42.54	43.46	44.37	45.28	46.19	47.10	48.01	48.92
24	28.23	30.42	31.34	32.25	33.16	34.08	34.99	35.90	36.81	37.72	38.63	39.54	40.46	41.38	42.29	43.20	44.11	45.02	45.93	46.84	47.75
25	29.41	29.24	30.16	31.07	31.98	32.90	33.81	34.72	35.63	36.54	37.45	38.36	39.28	40.20	41.11	42.02	42.93	43.84	44.75	45.66	46.57
26	30.59	28.06	28.98	29.89	30.80	31.72	32.63	33.54	34.45	35.36	36.27	37.18	38.09	39.00	39.92	40.83	41.74	42.65	43.56	44.47	45.38
27	31.76	26.89	27.81	28.72	29.63	30.54	31.46	32.37	33.28	34.19	35.10	36.01	36.93	37.84	38.75	39.66	40.57	41.48	42.39	43.30	44.21
28	32.94	25.71	26.63	27.54	28.45	29.37	30.28	31.19	32.10	33.01	33.92	34.83	35.75	36.67	37.58	38.49	39.40	40.31	41.22	42.13	43.04
29	34.12	24.53	25.45	26.36	27.27	28.19	29.10	30.01	30.92	31.83	32.74	33.65	34.57	35.49	36.40	37.31	38.22	39.13	40.04	40.95	41.86
30	35.29	23.36	24.28	25.19	26.10	27.02	27.93	28.84	29.75	30.66	31.57	32.48	33.40	34.32	35.23	36.14	37.05	37.96	38.87	39.78	40.69
31	36.47	22.18	23.10	24.01	24.92	25.84	26.75	27.66	28.57	29.48	30.39	31.30	32.22	33.14	34.05	34.96	35.87	36.78	37.69	38.60	39.51
32	37.65	21.00	21.92	22.83	23.74	24.66	25.57	26.48	27.39	28.30	29.21	30.12	31.04	31.96	32.87	33.78	34.69	35.60	36.51	37.42	38.33
33	38.82	19.83	20.75	21.66	22.57	23.49	24.40	25.31	26.22	27.13	28.04	28.95	29.87	30.79	31.70	32.61	33.52	34.43	35.34	36.25	37.16
34	40.00	18.65	19.57	20.48	21.39	22.31	23.22	24.13	25.04	25.95	26.86	27.77	28.69	29.61	30.52	31.43	32.34	33.25	34.16	35.07	35.98
35	41.18	17.47	18.39	19.30	20.21	21.13	22.04	22.95	23.86	24.77	25.68	26.59	27.51	28.43	29.34	30.25	31.16	32.07	32.98	33.89	34.80
36	42.35	16.30	17.22	18.13	19.04	19.96	20.87	21.78	22.69	23.60	24.51	25.42	26.34	27.26	28.17	29.08	29.99	30.90	31.81	32.72	33.63
37	43.53	15.12	16.04	16.95	17.86	18.78	19.69	20.60	21.51	22.42	23.33	24.24	25.15	26.06	26.97	27.88	28.79	29.70	30.61	31.52	32.43
38	44.71	13.94	14.86	15.77	16.68	17.60	18.51	19.42	20.33	21.24	22.15	23.06	23.98	24.90	25.81	26.72	27.63	28.54	29.45	30.36	31.27
39	45.88	12.77	13.69	14.60	15.51	16.43	17.34	18.25	19.16	20.07	20.98	21.89	22.81	23.73	24.64	25.55	26.46	27.37	28.28	29.19	30.10
40	47.06	11.59	12.51	13.42	14.33	15.25	16.16	17.07	17.98	18.89	19.80	20.71	21.63	22.55	23.46	24.37	25.28	26.19	27.10	28.01	28.92
41	48.23	10.42	11.34	12.25	13.16	14.08	14.99	15.90	16.81	17.72	18.63	19.54	20.46	21.38	22.29	23.20	24.11	25.02	25.93	26.84	27.75
42	49.41	9.24	10.16	11.07	11.98	12.90	13.81	14.72	15.63	16.54	17.45	18.36	19.28	20.20	21.12	22.03	22.94	23.85	24.76	25.67	26.58
43	50.59	8.06	8.98	9.89	10.80	11.72	12.63	13.54	14.45	15.36	16.27	17.18	18.10	19.02	19.93	20.84	21.75	22.66	23.57	24.48	25.39
44	51.76	6.89	7.81	8.72	9.63	10.55	11.46	12.37	13.28	14.19	15.10	16.01	16.93	17.85	18.76	19.67	20.58	21.49	22.40	23.31	24.22
45	52.94	5.71	6.63	7.54	8.45	9.37	10.28	11.19	12.10	13.01	13.92	14.83	15.75	16.67	17.58	18.49	19.40	20.31	21.22	22.13	23.04
46	54.12	4.53	5.45	6.36	7.27	8.19	9.10	10.01	10.92	11.83	12.74	13.65	14.57	15.49	16.40	17.31	18.22	19.13	20.04	20.95	21.86
47	55.29	3.36	4.28	5.19	6.10	7.02	7.93	8.84	9.75	10.66	11.57	12.48	13.40	14.32	15.23	16.14	17.05	17.96	18.87	19.78	20.69
48	56.47	2.18	3.10	4.01	4.92	5.84	6.75	7.66	8.57	9.48	10.39	11.30	12.22	13.14	14.05	14.96	15.87	16.78	17.69	18.60	19.51
49	57.65	1.00	1.92	2.83	3.74	4.66	5.57	6.48	7.39	8.30	9.21	10.12	11.04	11.96	12.87	13.78	14.69	15.60	16.51	17.42	18.33
50	58.82		.75	1.66	2.57	3.49	4.40	5.31	6.22	7.13	8.04	8.95	9.87	10.79	11.70	12.61	13.52	14.44	15.35	16.26	17.17

Table No. 4

Cost of Cotton	Cotton Plus Waste	Price of Yarn																			
		Price of Yarn Less 5% & 2% & .65 frt.																			
82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98					
74.16	75.07	75.99	76.90	77.82	78.73	79.64	80.55	81.46	82.38	83.29	84.20	85.11	86.03	86.94	87.85	88.77					
23	27.06	47.10	48.01	48.93	49.84	50.76	51.67	52.58	53.49	54.40	55.32	56.23	57.14	58.05	58.97	59.88	60.79	61.71			
24	28.23	45.93	46.84	47.76	48.67	49.59	50.50	51.41	52.32	53.23	54.15	55.06	55.97	56.89	57.80	58.71	59.62	60.54			
25	29.41	44.75	45.66	46.58	47.49	48.41	49.32	50.23	51.14	52.05	52.97	53.88	54.79	55.70	56.62	57.53	58.44	59.36			
26	30.59	43.57	44.48	45.40	46.31	47.23	48.14	49.05	49.96	50.87	51.79	52.70	53.61	54.52	55.44	56.35	57.26	58.18			
27	31.76	42.40	43.31	44.23	45.14	46.06	46.97	47.88	48.79	49.70	50.62	51.53	52.44	53.35	54.27	55.18	56.09	57.01			
28	32.94	41.22	42.13	43.05	43.96	44.88	45.79	46.70	47.61	48.52	49.44	50.35	51.26	52.17	53.09	54.00	54.91	55.83			
29	34.12	40.04	40.95	41.87	42.78	43.70	44.61	45.52	46.43	47.34	48.26	49.17	50.08	50.99	51.91	52.82	53.73	54.65			
30	35.29	38.87	39.78	40.70	41.61	42.53	43.44	44.35	45.26	46.17	47.09	48.00	48.91	49.82	50.74	51.65	52.56	53.48			
31	36.47	37.69	38.60	39.52	40.43	41.35	42.26	43.17	44.08	44.99	45.91	46.82	47.73	48.64	49.56	50.47	51.38	52.30			
32	37.65	36.51	37.42	38.34	39.25	40.17	41.08	41.99	42.90	43.81	44.73	45.64	46.55	47.46	48.38	49.29	50.20	51.12			
33	38.82	35.34	36.25	37.17	38.08	39.00	39.91	40.82	41.73	42.64	43.56	44.47	45.38	46.29	47.21	48.12	49.03	49.95			
34	40.00	34.16	35.07	35.99	36.90	37.82	38.73	39.64	40.55	41.46	42.38	43.29	44.20	45.11	46.03	46.94	47.85	48.77			
35	41.18	32.99	33.90	34.81	35.72	36.64	37.55	38.46	39.37	40.28	41.20	42.11	43.02	43.93	44.85	45.76	46.67	47.59			
36	42.35	31.81	32.72	33.64	34.55	35.47	36.38	37.29	38.20	39.11	40.03	40.94	41.85	42.76	43.68	44.59	45.50	46.42			
37	43.53	30.63	31.54	32.46	33.37	34.29	35.20	36.11	37.02	37.93	38.85	39.76	40.67	41.59	42.50	43.41	44.32	45.24			
38	44.71	29.45	30.36	31.28	32.19	33.11	34.02	34.93	35.84	36.75	37.67	38.58	39.49	40.40	41.32	42.23	43.14	44.06			
39	45.88	28.28	29.19	30.11	31.02	31.94	32.85	33.76	34.67	35.58	36.50	37.41	38.32	39.23	40.15	41.06	41.97	42.89			
40	47.06	27.10	28.01	28.93	29.84	30.76	31.67	32.58	33.49	34.40	35.32	36.23	37.14	38.05	38.97	39.88	40.79	41.71			
41	48.23	25.93	26.84	27.76	28.67	29.59	30.50	31.41	32.32	33.23	34.15	35.06	35.97	36.88	37.80	38.71	39.62	40.54			
42	49.41	24.75	25.66	26.58	27.49	28.40	29.32	30.23	31.14	32.05	32.97	33.88	34.79	35.70	36.62	37.53	38.44	39.36			
43	50.59	23.57	24.48	25.40	26.31	27.23	28.14	29.05	29.96	30.87	31.79	32.70	33.61	34.52	35.44	36.35	37.26	38.18			
44	51.76	22.40	23.31	24.23	25.14	26.06	26.97	27.88	28.79	29.70	30.62	31.53	32.44	33.35	34.27	35.18	36.09	37.01			
45	52.94	21.22	22.13	23.05	23.96	24.88	25.79	26.70	27.61	28.52	29.44	30.35	31.26	32.17	33.09	34.00	34.91	35.83			
46	54.12	20.04	20.95	21.87	22.78	23.70	24.61	25.52	26.43	27.34	28.26	29.17	30.08	30.99	31.81	32.82	33.73	34.65			
47	55.29	18.87	19.78	20.70	21.62	22.53	23.44	24.35	25.26	26.17	27.09	28.00	28.91	29.82	30.74	31.65	32.56	33.48			
48	56.47	17.69	18.60	19.52	20.43	21.35	22.26	23.17	24.08	24.99	25.91	26.82	27.73	28.64	29.56	30.47	31.38	32.30			
49	57.65	16.51	17.42	18.34	19.25	20.17	21.08	21.99	22.90	23.81	24.73	25.64	26.55	27.46	28.38	29.29	30.20	31.12			
50	58.82	15.34	16.25	17.17	18.08	19.00	19.91	20.82	21.73	22.64	23.56	24.47	25.38	26.29	27.21	28.12	29.03	29.95			

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Queer Incidents in the Textile Industry

THE following list of queer incidents that have happened in the textile industry was collected, over a term of years, by a well known superintendent who has worked in both the South and New England. He jotted them down as he heard of them and they make quite an interesting bit of reading.—Editor.

There are many queer things which have occurred in the textile trade that are not generally known, like the following incidents:

One man has recently refused an offer of \$25,000 per year to take charge of a chain of mills, but is taking a position at less than \$20,000.

A superintendent was at one time engaged to take charge of two mills. When he reported for work, he found that another man had been engaged and was on the job. He sued for a year's salary and won his case.

An overseer once hired out to two different parties and was expected at each place on a certain date. His excuse was that he was afraid to lose one or both chances, so he engaged to both parties.

Two cotton mill superintendents once swapped positions by mutual agreement of both companies.

Two cotton mills are now successfully operating roving and spinning machinery without leather covered top rolls. They have removed the leather and the cloth cushion and making good work operating this machinery with these bare top rolls weighted.

A line of shafting was recently equipped with ball bearings. After the work was finished, a little bird flew in through a window and alighted on the spokes of a pulley which was on this shaft. The shaft began to turn! Showing what little friction was left.

A spinner operated spinning frames without twist gears and made a good grade of slack twisted yarn.

Another spinner reduced or increased the twist as desired in his yarns without changing draught gears, twist gears or the size of roving.

Another spinner used his spinning frames as a chain quiller or warp winder for chain yarn.

A weaver has woven a pair of pants on a dobby loom. The superintendent of the mill wore the pants.

Another weaver has woven pick and pick goods on a one-box loom.

Another weaver is weaving fringed towels on common one-box loom.

One mill makes diaper cloth from almost all waste. He makes as good cloth and gets as good a price for his diaper cloth as another mill does which used all high grade cotton.

A few expert manufacturers are drawing yarn off from spools and dyeing the yarn and warping it also onto loom beams all at one process ready for the loom.

Some weavers weave direct from either spinning bobbins, spools or

chain yarn and make excellent duck goods.

One mill has for its boss carder a former good spinner. This same mill has for its boss spinner a former good carder.

Two very large mills operate without overseers.

Another large one without a superintendent.

Another plant employs three overseers of carding, spinning and weaving where only one for each department was once employed. This same mill also employs three superintendents where only one was formerly employed.

One mill of over 10,000 looms makes practically all one line of print goods.

Another mill having only 1,000 looms has not two looms on the same line of goods.

One mill was practically turned upside down and kept on going during the change. The carding was on the first floor and the weaving was on the third floor. These two rooms swapped machinery to improve the traffic and succeeded in paying for the job by the savings effected.

Another mill was entirely rebuilt without losing any working time. This involved removing the old structure, rebuilding same anew and of equipping same with new machinery.

Some large mills operate with one to three clerks.

Other small mills have several clerks.

One large yarn mill operates without daily or weekly reports.

Several small mills have gone report crazed.

A large corporation made its own engines, spinning frames, looms and other machinery for several years.

A large textile plant has for years sold its entire product semi-annually only at auction and received good prices.

Another large corporation for years sold its goods a year ahead direct, through its treasurer, once per year. The rest of the year was his vacation.

A large "woolen company" did not use any wool in any one of its largest plants.

A large "linen" corporation never uses any flax.

And, for years the largest print cloth mills in the world were called the "Iron Works Mills." (This was because a foundry and machine shop was replaced by a large cotton mill.)

A man has run a pair of slubbers for 40 years.

A husband and wife have woven in the same alley for 50 years.

One mill is making a high grade sheeting which competes with the best and used only one process drawing.

Metallic top rolls were used for years successfully on the slubbers.

One mill is spinning filling on the bare spindle, using only paper tubes.

There are several mills which operate on Sunday but stop on Saturday. They are owned and

operated by Seventh Day Adventists.

There is a mill over one-fourth of a mile long and two stories high, all of which is operated by less than ten operatives. It is a rope plant.

There are a few mills left which are still using the old style wooden top flat cards, also being illuminated by kerosene lamps.

A certain mill agent entered his mills only on Sunday, when he would make a careful examination.

A certain mill treasurer who was lame entered his mill only at Christmas time. He had to be carried through.

Another plant had an agent and a superintendent who were most always in the mill.

A certain mill who did not agree with his treasurer made it a point for years to leave town whenever the treasurer started for the mill. The agent finally got "thru!"

An overseer of spinning operated his department without regular side spinners. His frames were equipped with roving stop-motions. When an end broke this motion stopped the roving from "feeding-in."

There is a large fine goods mill which operates continuously without making over one-half of one per cent of seconds.

A large mill operates a spooling department where the superintendent has never seen a snarly spool.

A boss weaver operated a large weave room for over two weeks without making seconds.

A young sport once grabbed a slowly moving belt and was carried over the shafting 16 feet high and landed in the next alley unhurt.

A superintendent and his master mechanic were down in the dust room of the picker room, when a bare spot in the wire of their trouble lamp short circuited and set the whole place afire. Both men barely escaped alive.

One mill is driven by one large pulley with three belts thereon. One belt drives the looms.

One mill was once set afire by fire which floated down the river into the wheel pit. It was oil burning on the surface of the water.

A large new mill was operated for over ten years without ever paying a dividend.

A large new mill was practically all worn out in five years' time for want of proper oiling and lack of care otherwise for its machinery.

Several mills have machinery now in operation which is nearly 100 years old.

One of the largest new cotton mills ever built has never been started. It is quite a few years old.

One large mill has never been operated in full. It is over 30 years old.

One management required the time of the help to be put down five times a day.

A large plant blows the whistle whenever the superintendent is wanted at the office.

There was a large mill which employed mostly tramp weavers. It was said that part of the profits of their (long since passed away) mill was gained from some of the many tramp weavers who never returned for their pay.

A young man came to town to seek a job as designer in a large mill. When he reached town he found that the superintendent had just left. So he decided to ask for the "Super's" job and got the job!

The superintendent of a very large system of mills was once asked what was the most difficult task he ever had to perform in connection with his job. His reply was that the hardest task "was to get the job!"

An overseer of weaving once made the serious mistake of having the sample asked for made wrong. He was "fired!" But the mill was sold a year ahead on the strength of this imperfect sample. He was then made assistant superintendent. But he soon became superintendent!

An overseer of weaving was once told that he was not big enough to hold his job. Soon after he became a big, successful mill owner.

A very successful mill man now has around 5,000 looms. He started business only a few years ago with a poor second hand loom.

For years there was a superintendent of a successful large mill North who owned a large portion of a mill South and which he rarely saw.

One of the most successful cotton mills ever operated was managed by a mill man who could hardly read nor write.

One mill never had but one superintendent in almost 50 years.

A large sample cloth belt was put into a mill. It soon got too slack. A foot was taken out of it to tighten it but it could not be put back on. They had to put 18 inches back into it before they could put it on again.

A carder reversed the moving direction of his top flats on the revolving flat cards and insisted that he was getting better work.

Another carder slowed down his revolving flat cards to one-half the regular speed and proved that they made good work.

Still another carder sets his drawing frame top rolls very much different than any other carder and gets good work. He has thrown aside all reasonable rules for setting rolls.

One large successful cotton mill stopped stripping its card four times daily, and only stripped them once a week. This was kept up for a long time before anybody found it out. Many mill men have tried to find out how to do away with stripping but have not been able to do this.

Now a mill is said to be so planned that it will run without pickers and drawing frames.

One mill has spun coarse yarns from card to spinning frame.

Before long a new machine may be invented into which a bale of cotton may be put in it at once and a completed wash dress come out at the other end!

Sometime ago a cotton grower promised to produce from his ranch cotton in any colored desired.

A certain weave room in a fine goods mill became so infested and over run with fleas that the help would not work in it until it was cleaned out.

A certain overseer's house became so full of common bats that he threatened to move. The bats had just about taken full possession.

Some years ago, soon after starting time, a large mill collapsed and got afire. Many of the operatives were destroyed by fire with the mill. They sang hymns until death came.

Not long ago a mill collapsed while in the process of construction.

A farmer who had never worked in a cotton mill invented one of the best spinning spindles and was paid \$100,000 for it.

A Methodist minister became so excited over this that he tried his luck and received \$10,000 for an improvement on a spinning spindle.

One of the most successful mill agents in the United States put a "greenhorn" in as superintendent. Said the agent, "That man does not know anything about a cotton mill but he makes a good superintendent." This man became agent of a large mill.

A rich farmer decided to enter the cotton manufacturing business. He equipped a mill and put his son in as superintendent. He has operated the mill successfully for over twenty years.

A mill superintendent became agent of a new mill. It is said that his boss carder asked him for the job of superintendent, and that the new agent told him he was not competent. In five years' time this carder became the treasurer of the mill where this agent worked!

There is a mill man who has worked in several responsible positions in various mills, but who has never asked for a job.

There are several mill men who apply for all the positions that become vacant.

One superintendent applied for the job he held when his employer advertised for a man to succeed him.

One mill is owned and operated by one family. Each member of the family is "manager."

Another mill is managed entirely by the help. There are head men and overseers but they are only figure heads.

Another mill has a treasurer and agent, but the "super" is the "head boss," the other officers do as he says.

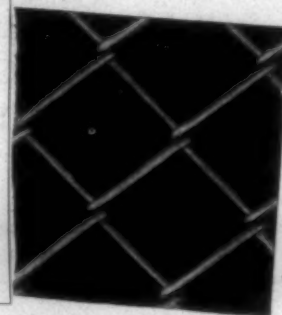
A young man began work in a mill, saved his hard earned cash and bought the stray shares offered on the market of the mill he worked in. In time he became head owner.

A certain nice new mill which was well nigh on the rocks suddenly hit upon the idea of making all uneven yarn fabrics and was sold a year ahead for the entire product of same.

A very old mill, the shares of which had dwindled down to almost

(Continued on Page 22)

Another Southern Mill Specifies Page Protection



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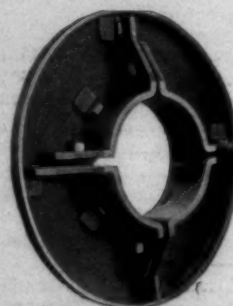
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Attleboro, Mass.

SOUTHERN TEXTILE BULLETIN

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D. H. HILL, JR.
JUNIUS M. SMITH

Managing Editor
Associate Editor
Business Manager

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Textile Show Great Success

WE wish to add our warmest congratulations to the praise that has already been given officials of the Southern Textile Exposition for the unqualified success of their sixth show. The exposition in every way exceeded expectations and too much cannot be said in commendation of the splendid way in which every detail was handled.

Perhaps the most significant indication of how well pleased the exhibitors were is seen in the fact that one hundred and fifty of the firms which had exhibits this year have already applied for space for the next Exposition.

The show this year was not only larger, but more interesting than those of previous years. The machinery and equipment on display embraced practically everything that goes into a modern mill. The building of the annex to the main hall provided room for many more exhibits and the annex space was as effectively used as that in the main hall.

We were very agreeably surprised at the number of new machines and devices seen at the show. The machinery builders are making great headway in improving their products and introducing newer and better methods of manufacture. Mill men who attended the show found a wealth of new ideas to interest them and we are sure that many of them will be readily adopted by Southern mills.

While this has not been a prosperous year for the mills, the sales of equipment by exhibitors greatly exceeded that of other years. It is worth while to note that many of these sales were made to mills who are sparing no expense to improve their equipment and who realize the necessity of utilizing the latest machinery developments to meet present day competition.

Some idea of the size of the Sixth

Southern Textile Exposition may be had from the fact that it took fifty carloads of freight to carry the exhibits to Greenville. Approximately 900 persons were employed in the 192 exhibits which occupied the three floors of Textile Hall and both floors of the Annex. The paid admissions to the show were estimated at 30,000 for the week, and this number was considerably increased by exhibitors and others who held passes.

Greenville did itself proud in taking care of the visitors who came to the show. The work of the housing committee in promptly securing accommodations was especially praiseworthy. Visitors were shown every consideration and the courtesy of the Greenville people will long be remembered by every one present during the week.

The Southern Textile Exposition has kept pace with the remarkable development of the textile industry in the South and reflects credit not only upon those in charge of it and the city of Greenville, but on the whole South as well.

Idle Spindles

THE following list shows the number of cotton spindles that were entirely idle during September. It does not include spindles that were operated on part time:

Alabama	120,661
Georgia	215,024
North Carolina	498,078
South Carolina	338,517
Connecticut	145,704
Maine	137,546
Massachusetts	2,708,532
New Hampshire	845,408
Rhode Island	1,051,396

Idle in South	1,204,105
Idle in New England	4,888,586
Idle in other States	622,762

Total idle during Sept. 6,715,453

Need of Research

WE sincerely hope that the plea for the establishment of a really adequate research plant devoted to textile work, made by John Bancroft before the Southern Textile Association in Greenville last week, will not go unheeded. The value of such an establishment to the mills of the country would be incalculable.

Textile research as at present carried out in this country is extremely limited and entirely below the standard that the size and importance of the industry justifies. The field of research offers more opportunity to the cotton manufacturers than perhaps any other big business in the country. We are faced with the necessity of either going more seriously into this work or of seeing England surpass us in textile ability. Far-seeing men in the industry have for many years recognized the need of adequate research.

Mr. Bancroft, after presenting a very strong plea for the establishment of a research plant that would be sufficiently broad in scope to properly handle our textile work, suggested that such a plant be organized through the combined efforts of the mill owners and technical men. He further suggested that Washington would be an ideal location for such a plant. Located near the National Capital, it would be readily accessible to manufacturers in the South and in New England and at the same time would have the advantage of being near the Government laboratories in Washington.

Officials of the Textile Division of the Department of Commerce in Washington have taken kindly to Mr. Bancroft's suggestion. For some time, the Textile Division has conducted some textile research in textiles but have been handicapped for lack of funds for this work.

It has been said over and over again by Government textile experts that cotton manufacturers can no longer delay in using every means at their command to meet foreign competition. If the textile industry will offer aid in establishing a scientific laboratory and provide funds for paying a limited number of technologists, there is no doubt that the value of the work would be so quickly recognized that its success would be assured, according to Government men in Washington.

Manufacturers in New England and the South both recognize the need of some such central research laboratory and we hope that some definite action looking toward its establishment will not be long in developing.

At the Textile Diversification Dinner in Charlotte last month, M. D. C. Crawford concluded his remarks on diversification by saying:

"That section which seriously takes up research and seriously sees it through will dominate not only the textile markets of this country, but of the world as well."

Cotton manufacturers in England have already a well established research plant. The Shirley Institute there is supported by contributions

from the mills and is doing a work that has become invaluable to them.

The sooner the textile industry awakens to the importance of research, the sooner it may expect to find itself equipped to meet the competition of foreign manufacturers.

Too Many Cotton Reports

OPPOSITION to the frequency with which Government cotton reports are being published is steadily growing and a strong protest against the bi-monthly reports will be sent to Washington within the near future.

The New York Cotton Exchange, the New Orleans Cotton Exchange and the Liverpool Cotton Exchange are protesting against the number of reports. It is expected that when the National Association of Cotton Manufacturers meets in Boston next month an official protest will be lodged against the frequency of Government crop reports.

One of the leaders of the National Association, who will speak at the meeting, recently said: "I plan to make an attack upon the present guessing contest between the Department of Agriculture and the cotton speculators over the bi-monthly reports on the condition and crop."

While the cotton trade appreciates that the Department of Agriculture adopted the semi-monthly reports, which was inaugurated this year, did so with an idea of further stabilizing cotton prices, it is regretted that the plan worked out quite the opposite. Coming twice a month, these reports have proved a constant irritant to the trade and have had a depressing effect upon the cotton and textile industries.

Set-Back Tournament At Next Meeting

ON account of conflicting with other events, the set-back tournament which was to have been played in Greenville last week for the championship of the Southern Textile Association was called off. The tournament will be played at the next meeting of the Southern Textile Association.

Several very handsome prizes were donated for the winners in the tournament and will be presented when it is played next spring. First prize was donated by the New York and New Jersey Lubricant Co. and Parks-Cramer Co.; second prize by Howard Bros. Mfg. Co. and the S. K. F. Industries, and the consolation prizes by Joseph Sykes Bros. and the Lestershire Spool and Mfg. Co.

David Clark in Texas.

David Clark, editor of the Southern Textile Bulletin, is spending this week in Texas. He will visit Waco, Dallas and Waxahachie. Mr. Clark will attend the meeting of the Texas Textile Association on Friday. While in Texas he will make several addresses in opposition to the Child Labor Amendment.

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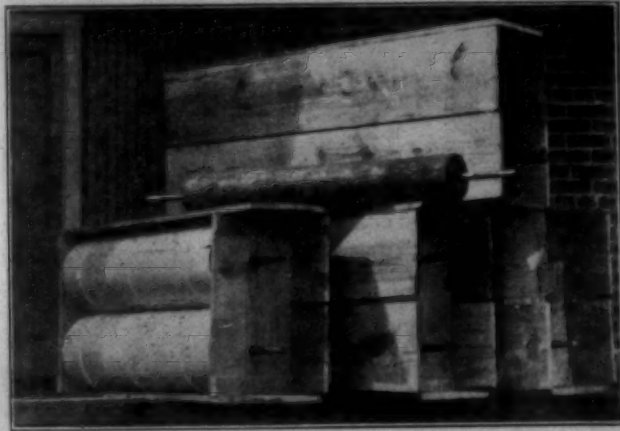
You may buy the loom to make print cloth. If you want to run silk filling or make denims or light duck or any other of the many varieties of cloth within the range of that weight of loom, we have the parts to apply and the loom is made to take them. Experiments are not necessary. It has all been worked out.

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HOUGHTON

RUMORS

Chatter by Chas. E. Carpenter

SOME wise guy once said, "There is no accounting for rumors." But I don't agree with him. It has been my observation that one of the penalties of success is to be lied about and that the higher you climb on the ladder of prosperity the heavier the load you must carry as a handicap, just as they make a good horse carry a penalty, just for being a good horse.

Some one at some time started a rumor that I was opposed to trade or technical publications and I did not believe that advertising in them paid. I never even thought such a thing. The rumor was traced and found to have originated with a competitor, who thought that by circulating such a rumor he could turn the powerful influence of the technical press against our Company. The originator of the rumor used as a basis for his argument, the fact that our Company publishes its own journal. Surely the fact that one owns an automobile is no proof that one does not believe in the economy and convenience of public taxicabs.

Our Company's publication, *The HOUGHTON LINE*—of which I am the humble Near Editor—has an entirely different object and covers an entirely different field of endeavor from that which might be attained in any paid subscription publication.

The LINE is my personal message to the trade. In its pages I say many things which no technical journal would or ought to print. A technical journal has its own business to attend to and cannot afford to take sides in any controversy. *The LINE* is full of controversy, plus.

There is a sort of professional understanding between one publisher of a paid subscription publication and another, that one is not to criticize the other. This is all as it should be and the publishing field is all the better because of the understanding, just as the

medical profession is all the better because its members do not criticize one another. But that does not mean that both should not be criticised in the proper place and in the proper manner and I frequently criticize the technical press in *The LINE*—sometimes favorably, sometimes unfavorably, always constructively.

Lots of folks who use Houghton Products don't like *The LINE*, which is a testimonial to the broadmindedness of such folks.

Some read it but agree with but little I write, yet they buy the Houghton Products. That proves that they are real fellows.

Others just rave over it. It requires all the time of one secretary and the better part of the time of another to handle the mail from *LINE* readers and then I personally only am able to see but a small portion of it, for near editing is not my regular business.

I want to correct another rumor. It has been said that we will mail only one copy of *The LINE* to one person in each Company. This is not true and never was true. "The more the merrier," is our motto on *LINE* circulation, so long as the person requesting it is an industrial executive of some sort. There are over 120 copies going to executives of the United States Steel Corporation and one large textile mill furnished us 60 names. The Eastman Kodak Company sent us over 100 names. Not only are the officers eligible to receive *The HOUGHTON LINE* free, but so is every overseer, engineer, loom fixer, etc.

You might send in one name right now on the following form:

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P. O. Address

Company

Position

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(Cotton, Woolen or Silk)

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AND IN EVERY OTHER TEXTILE MANUFACTURING CENTER OF THE WORLD

Oils and Leathers for the Textile Industry

Personal News

H. P. Hunt has resigned as overseer carding at the Pomona Mills, Greensboro, N. C.

R. D. Jones, of the Midland Chemical Company, paid us a visit this week.

T. L. Ayers, of the Riverside Mills, Anderson, S. C., has become overseer carding at the Brogon Mills, of the same place.

J. R. Clark has accepted the position of superintendent of the Oconee Manufacturing Company, Walhalla, S. C.

W. R. Widdup has been engaged as traveling representative for the Andrews Loom Reed and Harness Works, Spartanburg, S. C., and will cover the Southern territory.

R. L. Hulsey, overseer carding at the Pomona Mills, Greensboro, N. C., recently resigned a similar position at the Brogon Mills, Anderson, S. C.

H. M. McCullough, vice-president of the Peerless Woolen Mills, Chattanooga, Tenn., has been re-elected president of the Chattanooga Manufacturers' Association.

J. G. Gillespie has resigned as overseer weaving at the Drayton Mills, Drayton, S. C., to accept a position as sample man with the Judson Mills, Greenville, S. C.

H. M. Deason has resigned as overseer carding and spinning at the Micolas Mills, Opp, Ala., to become overseer carding and spinning at the Delta Land Company, West Helena, Ark.

Herman Seydel, president and manager of the Seydel Chemical Company, who attended the Southern Textile Exposition at Greenville, delivered an address on suggested improvements in methods of sizing cotton warps.

Obituary

C. L. Hutcheson.

Charles Lee Hutcheson, age 60, a former mill superintendent, died in High Point, N. C., on Tuesday. He was superintendent of the Sapona Cotton Mills at Cedar Falls for nine years and had been in the mill business since his early youth. He is survived by his wife and three sons.

George W. Forster.

George W. Forster, who for many years has been connected with the Universal Winding Company, of Boston, died suddenly at his home in that city on Monday morning. His death was due to pneumonia.

Mr. Forster was widely known in the textile industry in both New England and the South and had a large number of friends who will learn with deep regret of his passing. He was regarded as one of the

most expert textile machinery men in the country. He was held in high esteem by the officials of the Universal Winding Company and his services to that organization were particularly valuable. Mr. Forster was a man of unusually pleasing personality and he will be greatly missed by those who knew him.

Mrs. Ellen Lowry Still.

Mrs. Ellen Lowry Still, widow of W. A. Still, who died at his home in Greenwood several years ago, passed away at the home of her son, B. L. Still, at Lancaster Thursday afternoon at 3 o'clock after an illness of two weeks.

The body was taken to Greenwood and the funeral services were conducted at the home of her daughter, Mrs. J. P. Cothran, on Court street, Saturday morning at 10:30 o'clock by Dr. A. T. Jamison. Interment was made in Magnolia cemetery.

Mrs. Still was 77 years of age and leaves a large number of friends who will learn with sorrow of her death. She had been making her home with her son at Lancaster for some time. The following children survive: J. E. Still, Greenwood; B. L. Still, Lancaster; W. H. Still, Rockingham; Mrs. M. S. Stevens, Johnston; Mrs. C. C. Flyan, Ninety-Six; Mrs. J. H. Washington, Greenville; Mrs. J. P. Cothran, Greenwood; Mrs. M. M. Slice, Newberry, and Mrs. S. M. Singleton, Dublin, Ga.

The following served as pallbearers: S. C. Hodges, E. M. White, S. P. Wright, G. E. Bannister, G. S. Yeldell and Fitz Lee.

Mary Louise Mill. Mayo, S. C.

12,000 spinning spindles.

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D. T. Bagwell _____ Carder
C. C. Gault _____ Spinner
J. M. Phillips _____ Master Mechanic

Clover Cotton Mills. Clover, S. C.

24,000 spinning spindles.

John W. Long _____ Supt.
W. R. Eastridge _____ Carder
J. W. Brown, No. 1 Mill, J. C. Far-
ris, No. 2 Mill _____ Spinners
J. T. Huneycutt _____ Asst. Supt.
W. R. Rich _____ Master Mechanic

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We have opening for Jacquard fixer Stafford Looms. 45½ cents per hour.

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Bobbins For Filling Wind
Samples of such bobbins gladly
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Nickle Plated Drop Wires

Others manufacture copper-plate drop wires. So do we, when a mill prefers that finish, but it is an axiomatic chemical fact that the acids formed by sizing compounds and starches, plus the moisture from the humidifiers, which so freely corrode the copper itself, cannot and will not corrode the nickel.

Many mills are thus escaping steel rust and copper corrosion by using our nickel-plated drop wires.

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"Duplex" Loom
Harness—complete
Frames and
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Leno Doups
Harness Frames
Jacquard Heddles

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Copper-Plated
Plain Finish
Improved
Loom Reeds
Leno Reeds
Lease Reeds
Combs

MILL NEWS ITEMS OF INTEREST

Montgomery, Ala.—The Montala Manufacturing Company has resumed operations after having been idle for some time.

Opp, Ala.—The Micolas Cotton Mills has let contract to T. F. Winston for the erection of 30 new houses in their mill village.

Durham, N. C.—The various plants of the Durham Hosiery Mills, which have been running on short time for some months, have returned to full time operations.

Woodruff, S. C.—The Jenkins Mills will install 100 Draper novelty looms for the manufacture of curtain goods. They will discontinue the manufacture of yarns.

Enoree, S. C.—The Enoree Manufacturing Company has placed orders for 310 high speed automatic looms manufactured by the Hopedale Manufacturing Company, Milford, Mass.

Rome, Ga.—The McLin Mills, which now have 85 looms, will install necessary carding, spinning and other equipment for making their own yarns.

Galveston, Tex.—The Galveston Chamber of Commerce is interested in organizing a company to build a cotton mill here and is prepared to furnish a part of the necessary capital to manufacturers who may be interested.

Rutherfordton, N. C.—The Grace Cotton Mill Company, of this place, began work full time this week, day and night. This is the first time in several months that it has been on full time. Most of the mills of this county are now on full time.

Cumberland, S. C.—The Cumberland Plush Mills have been incorporated by James D. McNeill, Fayetteville, N. C., Clifton Corley, of Cumberland, and W. E. DuPre and E. W. Allen, of Greenville, S. C. It is understood that the company will install machinery for manufacturing plush.

Clifton Corley is president of the Corley Mills, of Cumberland, and the Vardry Mills, Greenville, while W. E. Dupre is president of both these companies.

Selma, N. C.—As soon as the necessary force of operatives can be procured, the Selma Cotton Mills Company will begin full time operations, according to a recent announcement. The mill has been running a full day shift, and the output will be practically doubled when the night shift is added. Mill officials state that the demand for cotton goods is steadily increasing, and this increase in production is noted as an indication of better times.

Belmont, N. C.—The regular annual stockholders meeting of the Majestic and Climax Mills was held at the mill office building Monday afternoon. A good representation of the stockholders was present. The old officers and board of directors were re-elected to serve another year. The usual dividend checks were paid out.

Walhalla, S. C.—The Oconee Manufacturing Company will be the name of a hosiery plant soon to be in operation in Walhalla, notice of intention to apply for a charter having been given by W. K. Stringer, N. F. Stringer and W. Frank McGee, of Anderson.

These men, who some time ago purchased the Hetrick Hosiery Mills, of Walhalla, state that they will form a company with a capital stock of \$60,000, being divided into 600 shares at \$100 par value.

The declaration for the charter states that the "general nature of the business it proposes is to won,

equip and operate a plant for the manufacture, spinning, weaving, dyeing, printing, finishing, or goods of any kind spun, woven or made of cotton, wool, silk or any other fibrous articles and any other article whatsoever which they may from time to time desire; the buying and selling of merchandise in connection with their mill business and production."

Rutherfordton, N. C.—The annual meeting of the stockholders of the six mills of this place and Spindale was held last week. It was decided to hold the meeting in October, rather than January. Prospects for improved business conditions are much brighter.

The following officers were elected: The Elmore Co., K. S. Tanner, president; G. B. Howard, secretary and S. E. Elmore, treasurer. The Cleghorn Mills, James R. Gilliam, Jr., president; M. O. Dickerson, vice-president; K. S. Tanner, secretary and treasurer and R. R. Flack,

assistant secretary and treasurer. The Spencer Mills Co., S. B. Tanner, Jr., president; S. E. Elmore, vice-president; K. S. Tanner, secretary-treasurer and G. B. Howard, assistant secretary-treasurer. Stonecutter Mills Co., W. H. Belk, president; S. E. Elmore, vice-president; T. B. Lovelace, vice-president; K. S. Tanner, secretary - treasurer; J. C. Cowan, Jr., assistant secretary-treasurer. Grace Cotton Mills Co., W. A. Harrill, president; C. L. Miller, vice-president; T. F. Oates, secretary; K. S. Tanner, treasurer and R. R. Flack, assistant secretary-treasurer. The Spindale Mills Co., J. H. Thomas, president; S. E. Elmore, vice-president; C. L. Miller, secretary; K. S. Tanner, treasurer and C. B. Howard, assistant secretary-treasurer.

Spartanburg, S. C.—All parties interested have agreed that no further action will be taken in regard to the sale of the Model Mill until after the two Methodist conferences of South Carolina meet. The Upper Conference will meet about November 25. It is hoped that the church can avert the sale.

Griffin, Ga.—Construction work on the new mill to be built here by the Unity Investment Company, as recently noted, will be started within a short time. The mill will have 400 looms and necessary carding, spinning and combing equipment and will manufacture satens. W. F. Ingram is president of the company. Lockwood, Greene & Co. are engineers for the new plant.

Asserts South Will Lose Textile Hold

Boston.—Any advantage possessed by the South over New England in textile manufacturing is only temporary, said Orra L. Stone, general manager of the Associated Industries, in a report presented here. Mr. Stone's report reflected a hopeful view concerning the outlook for New England, especially for manufacturing industries, and declared that "we have peculiar advantages which other sections of the United States do not possess and cannot well equal."

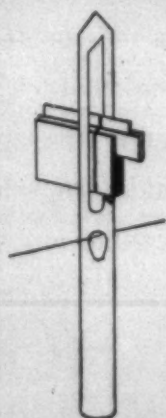
With reference to the Southern textile advantages over New England he said:

"There are far-seeing cotton textile manufacturers who have carefully canvassed the Southern situation with a view to locating branch plants there, who are convinced that most of the Southern advantages are but temporary. They argue that there is a limit to the supply of native white labor, that the day is fast coming when it will be necessary to import textile hands from other sections, that with their advent the labor unions may be expected to direct their efforts toward a stronger foothold in the South and

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Largest Landscape Organization in the South

that, human nature being the same the world over, the politicians of that section will succumb, as their Northern brethren have done, to the same temptations that have been set before legislators in New England.

"Many Northern manufacturers predict that in ten years there will be a leveling-up process in the South and a leveling-down process in the North, the result of which will eliminate the present advantage in favor of the Southern competitor.

"Actual moving of 100,000 spindles now and then from the North to the South, where owners think they have a temporary advantage, will not be noticed in the long run. If it serves to focus attention on the present situation and helps to bring about corrective measures the major portion of the industry will be kept in New England."

Government Officials Approve Research Plan

Washington.—The proposal for a research laboratory for the textile industry to be established here, made by John Bancroft, president of John Bancroft & Sons Co., Wilmington, Del., at Greenville, S. C., was characterized by officials here as a step in the right direction to produce benefits vital to the American textile industry.

Commenting on the proposal, E. T. Pickard, chief of the Textile Division of the Department of Commerce, said that at present there was a woeful deficit in industrial research laboratories in this country.

While we have a number of schools and bureaus engaged in technical research work, little has been accomplished toward providing means of studying basic principles involved in the textile industry, Mr. Pickard said:

He also expressed the opinion that a well-supported laboratory would not only prove of great benefit to the textile industry, but would pay dividends 100 times over.

"Textile schools," Mr. Pickard said, "have no time for the particular kind of research work so badly needed at the present time. The schools," he continued, "are doing

good work, but there is room for a well-established technical laboratory that will not only cover the manufacturing of cloth but merchandising and distribution as well."

England, Mr. Pickard pointed out, has a well-supported technical research school to which practically all manufacturers contribute. The benefits derived from the British school, he said, could not be overestimated.

While the Bureau of Standards of the Department of Commerce has been doing some research work in the textile field, their operations are more or less limited, because of the small appropriation for such work made them by Congress each year.

Mr. Pickard expressed the opinion that if the trade would take the matter up seriously, a suitable arrangement could be worked out with the Bureau of Standards that

would insure the textile industry a first-class textile research laboratory.

Cotton Refining Co. Uses New Process

New Bedford, Mass. — The new plant of the International Cotton Refining Corporation, operating under the patents obtained by Phillip C. Wadsworth, its organizer, was opened for inspection last week. Experts who have watched its operation and followed low grade cotton until it comes out as a high grade product have pronounced the process as of inestimable benefit to the cotton manufacturer.

The Wadsworth process is based primarily on the principle of dehydration, removing the moisture from

the cotton at a temperature of 130 to 140 degrees Fahrenheit, which cannot possibly damage the fiber. After the cotton is cleaned the normal moisture is restored by a rehydrating process. While the cotton is in a dry state it is possible to treat it with greater efficiency. The methods employed are purely mechanical, and no beaters are used, thus eliminating all injury to the fiber.

Low grade cotton treated by the Wadsworth process is raised several grades in character. On textile expert makes the following comment: "I find from experience in operating the Wadsworth process that the lowest grade cotton obtainable, so long as it contained unperished fibre in the majority, can be raised, whatever its grade, to a high grade and the character of the cotton, from a spinner's standpoint, entirely changed. I find that in operating this process the 'blue' or 'red' cast in the cotton is eliminated, which is, as generally known, caused by impregnating the cotton with the soil. In consequence of the elimination of the soil a cotton is produced that has added tensile strength, because of the fact that these atoms of soil, if retained in the cotton, cut the fibre as would emery dust, and naturally weaken it in all the various processes."

Briefly summarized, the advantages claimed to be obtained from manufacturing cotton prepared by the Wadsworth method are as follows:

1. Wastes lowered, giving larger percentages in card sliver per pound of cotton.
2. Greater tensile strength of yarn by reason of preservation of natural twist.
3. Cotton of "off-colors" prepared by this method bleach in the skein or cloth without tendering.
4. Increased value of extra staple cotton used in making combed yarns.
5. Increased value of card strips by reason of gentle methods used in the preparatory processes.
6. Power and labor saved through the elimination of cleaning machinery in the mill and of breaker and intermediate pickers.
7. Replacement having throughout the mill.
8. Elimination of fire risk in picker rooms.
9. Larger and freer production through the cotton mill, which eliminates many labor troubles.

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Rounded and flat

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Binder Straps--

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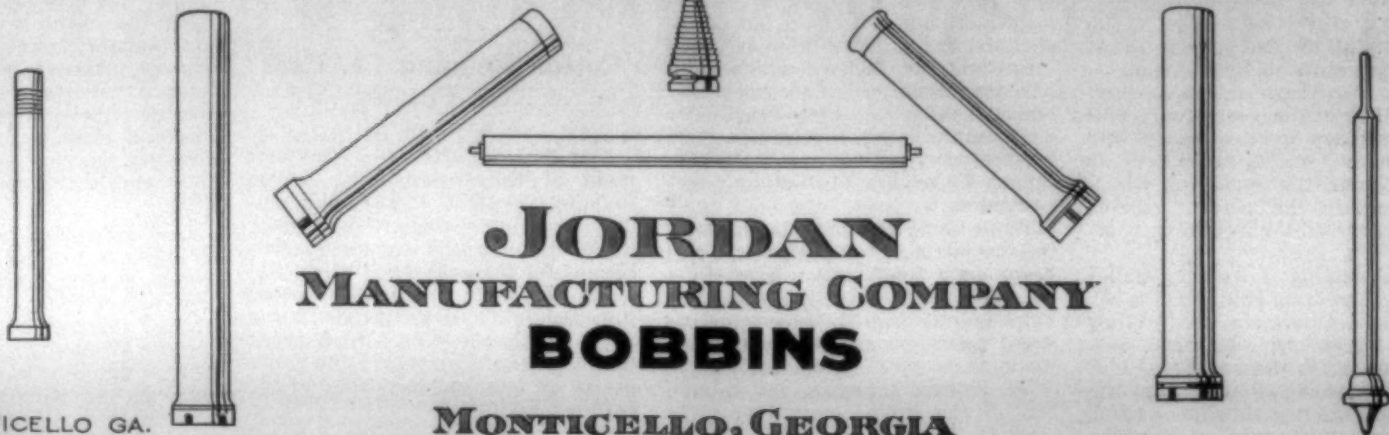
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MONTICELLO GA.
AND TOECANE, N.C.

Carding and Spinning

(Continued from Page 13)

	Total Draft	Carrier Gear 2d Roller			
Howard & Bullough.....	3.25	—	29	204.95	—
Howard & Bullough.....	4.02	—	30	269.35	—
Howard & Bullough.....	4.99	—	34	269.35	—
Howard & Bullough.....	5.96	—	38	381.58	—
Howard & Bullough.....	3.50	32	26	—	199.30
Howard & Bullough.....	4.52	32	28	—	271.14
Howard & Bullough.....	5.54	30	32	—	337.64
Howard & Bullough.....	6.49	30	33	—	337.64

For H. & B. Constant \times Draft = Draft Gear.For other makes Constant \div Draft = Draft Gear.

It will be noticed that the drafts for metallic rollers are about 10 per cent greater than for leather covered. The reason for this is that when the slivers first enter the machine, there is a thick strand, and the flutes can not mash the fibers down into the corresponding depressions. As the sliver is drawn towards the front roller, it becomes thinner, and each succeeding set of rollers mash it deeper into the depressions, thus elong-

ating it and making more draft. It can be readily seen that the lighter the drawing is, the more this mashing process will be from the start, and therefore the less the difference would be. If a light sliver were run of metallic rollers. The makers of the metallic rollers figure the amount of sliver delivered at 1 1/3 times the actual circumference of the rollers, on account of the fluting effect. This is about the correct ratio for the front roller, and for calculating production, but it will not do for drafts, because the back roller has practically no fluting effect.

GENERAL INFORMATION

A 6-delivery frame will occupy with cans a space of 11 feet by 5 1/2. Three frames will readily go across a 25-foot bay, if set lengthway with the mill; if set across, about 12 deliveries can be put into a bay, leaving room to pass around each end. With boxing, drawing frames weigh about 450 pounds per delivery. They are now usually made so that, if desired, the can tables are put on top of the floor, instead of being sunk in as formerly. This is a more sensible arrangement for several reasons.

One operative can attend to about eighteen deliveries on ordinary work. If the work be fine, the cans will empty and fill much more slowly, and more work can be done. In a rough way it may be said that one delivery of drawing (for each process) will be required for each card.

(Continued Next Week)

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Yarns, Twines, Etc.

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weaving. It is meeting every
requirement with entire satis-
faction.

\$100,000 INVOLVED IN SUBURBAN LAND SALE

Seventy-five Acres of J. Van Lindley Estate Purchased by First Realty and Loan Company

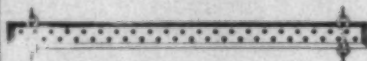
Over \$100,000 was involved in the sale yesterday of 75 acres of the J. Van Lindley estate, located on the Winston-Salem road just north of the Masonic home, to the First Realty and Loan Company.

This tract of land has a frontage of about 1,700 feet on the Greensboro-Winston-Salem highway. The First Realty and Loan Company is planning to develop it into residential property. The sale was negotiated by T. V. Carter.

The land described above is planted in choice varieties of flowering shrubs, trees, etc., and a clearance price will be made on them to Textile plants or others interested, that can use a quantity. Write for full particulars.

J. Van Lindley Nursery Co.
Pomona, N. C.

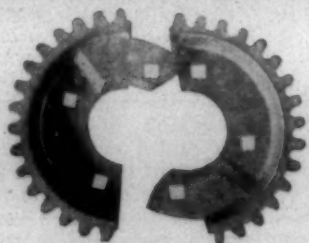
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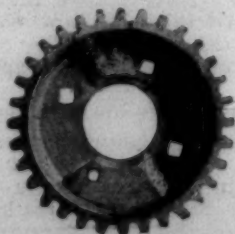
to any loom to replace a broken crank shaft gear. Saves material and time and also increases production.

Not a temporary makeshift but a permanent satisfactory repair part.

Write for sample.

Dan Gear Co.

Caroleen, N. C.



Queer Incidents In The Textile Industry

(Continued from Page 17)

five dollars a share, was taken hold of by a man who had never been superintendent before. He changed it over from a print cloth mill to a fancy goods mill. The shares soon jumped to nearly \$200 per share.

One of the ablest superintendents of the trade left his own well managed plant to straighten out another mill and failed.

Recently a gust of wind came along and lifted the roof of a nice new mill and laid it down in the yard.

A mill superintendent wanted to hire a first-class master mechanic. The superintendent was invited to visit the master mechanic's plant where he showed the agent one of his big steam engines. He placed a nickel on the cylinder head where it remained carefully balanced as the engine speeded. The agent hired him on the spot.

An overseer of spinning was invited to come and look at a job. When he reached the mill he took a magnifying glass out of his pocket and began looking for flaws in the fluted steel rolls. He got the job at once.

One of the leading superintendents of the trade had a mill office in the mill. He had it cut in two to make room for one more spinning frame. He got his pay raised.

One of the best superintendents in New England went one day to his treasurer and told him that his salary must be increased and that it must be retroactive for two years. He was dropped at once.

A capable superintendent found himself unemployed during hard times. He conceived the idea of building a mill. He started out single handed and succeeded in building one of the best mills now being operated.

A spinning frame has been invented which runs all of the spindles with a steel band.

A mechanic invented a ball bearing. He demonstrated it by placing a balance wheel on a shaft equipped with his new ball bearing. He gave it a start with his bare hands and it turned for three weeks. It was revolving slowly when the writer saw it and he thought it was about to stop in a few minutes. Upon inquiry he was advised that it would yet continue to revolve for a day and a half.

A warper has been invented which winds 1,000 yards per minute.

A shuttleless loom has been invented which weaves 1,000 picks per minute.

Two cotton mills run so good that they rarely have any ends down, and never have an idle spindle in their card or spinning rooms.

There are quite a few overseers who operate their departments with their own relations entirely.

One superintendent looked after a 1,700-loom plant for \$2 per day.

Another superintendent operated one of the smallest mills in New England and was paid \$6,000 per year.

There is an overseer of carding

who receives over \$100 per week for his services.

One of the largest positions opened in New England was offered to about twenty-five different men before they found one that would accept. The job paid upwards of \$20,000 per year.

One mill man got his pay raised \$8,000 per year for not leaving his job for another.

One man was hired for life.

A couple dozen men got their salaries raised on account of refusing the same position offered.

A certain man was asked to give his references. His reply was that as he had been "fired" in all of his previous jobs he could not produce any. He got the job. He is now a successful man at a big salary.

An overseer in a small mill applied for one of the largest jobs ever offered and received the job.

Two of the shortest mill men in the world had charge of two of our largest mills.

One of the biggest men of stature had charge of one of our smallest mills.

Several mills are managed by women.

Several women stenographers are expert mill managers and are big assistants to their general managers.

One mill man is named "general manager" but he never shows his hand in the management of his mills.

One of the largest and most successful mills in the world has a full roster of officers such as president, treasurer, agent, general manager, superintendent, but it is said there is a little man in the mill whose word is law. What he says goes first. He is the real head man of the plant.

There is a system of mills which are managed by three men jointly.

Several of the largest mills in the world were never built. They have remained on paper for five to ten years. These unbuilt plants maintain offices and a complete set of officials.

Quite a few men have been asked what they would accept to change, and have immediately resigned sincerely believing the jobs were theirs but were soon disappointed and out of a job besides.

There is quite an expert man who has worked in about 100 different cotton mills North and South. He has held about all positions of responsibility in a mill.

Several mill men have left their trades to become ministers of the gospel and vice versa.

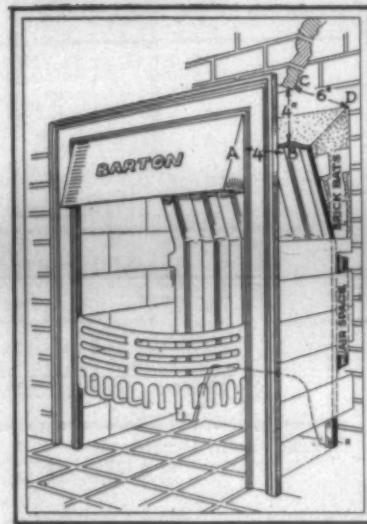
One man attended a cotton mill men's convention dressed from top to toe with goods made in his own mill. Everything he carried on his body, excepting his watch, was made of cloth made in his mill, including his hat, hat band, belt, shoes, shoe strings, watch chain, and watch case cover.

A school teacher was being shown through a mill. The overseer was explaining the carding. Said the school teacher, "Is this what is called a loom?"

A fireman was asked if he knew what steam is. Said he, "It is cold water gone crazy with the heat!"

(Continued on Page 26)

The Permanent Way to Make Repairs, is to Use Metal Fire Backs.



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Press Comment on Child**Labor Amendment****Unfairly Pledging Legislatures.**

The methods of supporters of the amendment in attempting to pledge candidates for the Minnesota Legislature in writing, before there has been opportunity for proper discussion, should warn candidates of the seriousness of the question. They should be mindful of the fact that a legislator is required to take oath "to support the Constitution of the United States and the Constitution of the State of Minnesota," and they should hold themselves open to do this, if elected.—Minneapolis (Minn.) Journal.

Curtailling Years of Labor.

Advocates of the abolition of child labor command the sympathy of a majority of Americans on the general principle involved, but when they advance the age to 18 years they have attempted to carry a worthy reform too far.

Is it proposed to keep all children in school until the boys can grow beards and not a few of the girls have a household of their own, or would they encourage a couple of years of idleness as a twilight zone between books and some useful occupation for those who are destined to earn a living by manual labor?—Times Advertiser, Trenton, N. J.

Parents Will Oppose Proposition.

It makes no difference how many political parties indorse the proposed Child Labor Amendment giving Congress the right to regulate the hours of labor of boys and girls under eighteen it is safe to predict that most fathers and mothers will want to oppose any such proposition. It does not need any speech making to show parents how much a law would operate.—Waterbury (Conn.) Democrat.

Too Much Regulation of Private Life.

There is too much of an attempt to supervise private life from public office. Centralizing more authority and more responsibility in the home and less in State and National boards will go a long way in getting us out of the bad rut we have gotten into. It is time we get back to first principles and have fewer faddists dictating laws by use of clever propaganda that work harm to society.—Frankfort (Ind.) Crescent and News.

Amendment Cannot Be Passed.

The proposal of this amendment in its present form is exceedingly unfortunate. We do not see how it can ever be ratified. The work will have to be done all over again; a new amendment, in line with the paths the Supreme indicates, will have to be fought through the Congress and put before the States. The over-zealous enemies of child employment have injured their cause, perhaps wrecked it beyond repair, by insisting on putting the amendment in the form they have.—Farm, Stock and Home.

Farmers' Liberties Should Not Be Abridged.

Idleness mars or ruins more children than overwork. A small percentage of small children are probably badly handled in some factories. If they are, the evil can be uprooted without abridging the liberties of farmers, few of whom overwork their children. There is altogether too much supersensitive sentimentality and not nearly enough common sense behind many modern proposals to "help," "save" or "protect" young or old. People everywhere long to be delivered from their fool friends, in or outside of lawmaking bodies.—The Breeders' Gazette.

Never a More Radical Revolutionary Measure.

There never was a more radical or revolutionary measure proposed for the consideration of the American people than this so-called Child Labor Amendment that at one stroke of the pen would set aside the fundamental American principle of State rights, and, at the same time, would destroy parental control over children and commit this country forever to the communistic system of the nationalization of her children.—Rt. Rev. M. J. Splaine, D. D.

Prevention of Child Labor Not the Only Object.

Were the prevention of child labor the only or the real end sought, the proposed Child Labor Amendment would not have been what it is. The cry of the children is not behind it but the sinister whisper of those seeking to abolish the rights of the States and their people, to deprive them of their police powers over their own immediate problems and to build up in a central government a socialistic bureaucracy working to substitute government limitations, regulations and prohibitions for the traditional and as yet constitutional liberties of the people.—Springfield (Mass.) Union.

There Might Be a Radical Congress.

It is by no means certain that temporary conditions will not arise that will lead to the election of a radical Congress. If that should come about, the only safeguard of the nation against bolshevism of the Russian kind would be the Constitution, which in part at least was designed to prevent just that sort of thing happening. The Constitution is a pretty good sort of document. It has needed to be amended from time to time and there will be need of other changes in the future. But we will want to go slow about it if our institutions are to be preserved.—Express and Adv., Portland, Me.

New Federalism Leads to Despotism

"The Sixty-eighth Congress adopted and has submitted to the States for ratification," says Dr. Nicolas Murray Butler, "still another proposal to amend the Constitution of the United States. This proposal, if

ratified, will enlarge the present legislative authority of the Congress so as to include the power to limit, regulate and prohibit the labor of persons under 18 years of age. This is popularly but mistakenly described as the Child Labor Amendment.

"That child labor ought not to exist in a civilized community should need no discussion. Where the loving care of parents and the intelligent policy of employers do not combine to protect childhood from exploitation, it is necessary, if the race itself is not to be degraded, to call upon the power of government. Here again the real question for consideration and decision is not as to the continuance or discontinuance of child labor, but as to the most effective method of bringing about that discontinuance. Fortunately the legislation on this subject by the great majority of the States is humane, progressive and intelligent. Public opinion supports this legislation and is steadily extending it.

"The new grant of power is not limited to childhood and to child labor, but it includes the activities of all persons under 18 years of age. It goes without saying that the vast majority of human beings are, and ought to be, helpfully and hopefully engaged in some form of gainful occupation for at least a part of the time before that age is reached. Indeed, it is difficult to see how the youth of the land can be properly educated without opportunity to engage in some systematic occupation after the age of 16.

"Proponents of this measure insist that the sweeping power which is to be conferred upon the Congress will never be used, that nothing more will be done than has already been proposed, and that the recalcitrant States will be brought quickly into line by the power of the Federal Government.

"Experience proves, however, that legislative bodies do not withhold their hand when the people grant them power; rather do they exercise it to the extreme limit.

The Child Labor Amendment.

One of the most unwarranted pieces of legislation that has been offered for years at Washington is a proposed amendment to the Constitution, providing that no boy or girl under eighteen years of age shall be allowed to work except under the provisions and the sanction of a government bureau to be established.

In the first place, we have already too much centralization of power in this country. The American ideal is to give the largest amount of liberty and responsibility to the individual citizen which is consistent with public order and welfare. Under the initiative of private enterprise and in working out of individual responsibility we have developed the finest citizenship the world ever saw in a country.

A large part of this new urge for the country to fasten new powers and burdens upon the Government under every sort of pretext has been the result of the coming in of these anti-American peoples. Think of the foolishness of the proposition that a

Government bureau shall control the youth of this nation about work, instead of their parents controlling them!

Think of the unwisdom of the proposition that a boy or girl from fourteen to eighteen years of age had better be regulated by a Government bureau as to work than by their parents! Think of the folly of the implication that it is better for the youth of this age to be without work than at work! We feel no hesitancy in saying that though we are the friend of public education, we would regard this country in far worse fix if its youth attended school and did not know how to work than it would be if they knew how to do common ordinary work but did not attend school. Western Recorder (Baptist), Louisville, Ky.

Farmers Will Have Troubles With Child Labor Amendment.

There has never been proposed any amendment to the National Constitution so utterly uncalled for and at the same time so dangerous to local self-government and individual liberty as the so-called labor amendment.

The uplifters have gone far in the control and regulation of city life. The farmers, who have fortunately escaped their interference, so far, will have their troubles begin if this labor amendment should become a part of the National Constitution.—The Call, Racine, Wis.

Age Limit Too High.

It is becoming evident that to place the age limit at eighteen was a grave technical blunder on the part of those responsible for the Child Labor Amendment. A great many people who are not concerned over the question of States' rights and who are thoroughly in sympathy with the movement to prevent exploitation of child labor will balk at writing into the Constitution such a grant of power.—Galveston (Tex.) News.

Lobbyists Ready to Get From Under.

The anti-child labor lobbyists got the 18-year provision into the amendment. They refused to allow an exemption for agriculture. They now come forward with the ingenious statement that they aren't responsible if a future Congress sees fit to enact an enforcement law which gives them what they want. They are ready to get out from under if a storm breaks.—Muscatine (Iowa) Journal.

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We want to get in touch with a salesman, woman preferred, who can sell "The Better Way," "Hearts of Gold," "Will Allen Sinner" and other books of Becky Ann (Mrs. Ethel Thomas) in the cotton mill villages.

The stories of Becky Ann deal with cotton mill life and are very popular in the mill villages. They sell for \$1.00 each.

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Charlotte, N. C.

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—C—	Norwood Engineering Co. — 34
Carrier Engineering Corp. —	—O—
Catlin & Co. — 29	Oklahoma Cotton — 27
Charlotte Leather Belting Co. — 36	—P—
Chicago Belting Co. —	Page Fence & Wire Products Assn. — 17
Chicago Fuse Mfg. Co. —	Paige, Schoolfield & Co. — 29
Cocker Machine & Foundry Co. —	Parker, Walter L. Co. —
Chickasha Cotton Oil Co. — 13	Parks-Cramer Co. —
Collins Bros. Machine Co. —	Paulson, Linkrum & Co. — 29
Converse & Co. —	Pawtucket Spinning Ring Co. — 34
Cooper-Hewitt Electric Co. —	Penick & Ford, Ltd. — 5
Corn Products Refining Co. — 2	Perkins, B. F. & Sons —
Courtney, Dana S. Co. — 19	Puro Sanitary Drinking Fountain Co. —
Crompton & Knowles Loom Works —	—R—
Curran & Barry — 28	R. L. Warp Stop Equipment Co. — 20
Cyclone Fence Co. —	Rice Dobby Chain Co. — 23
—D—	Ridley Watts & Co. — 23
Dan Gear Co. — 23	Robinson, John L. & Co. —
Dary Ring Traveler Co. — 35	Roessler & Hasslacher Chemical Co. —
Davidson, Jos. L. Co. — 21	Rogers Fibre Co. —
Diamond State Fibre Co. — 8	Root Co. —
Dixon Crucible Co., Joseph —	Roy, B. S. & Son —
Dixon Lubricating Saddle Co. — 26	—S—
Drake Corp. — 17	Saco-Lowell Shops — 30
Draper, E. S. — 29	Sayles Finishing Plants —
Draper Corp. — Colored Insert	Scott, Henry L. & Co. — 22
Dronsfeld Bros. —	Seaboard Ry. —
Druid Oak Belting Co. — 21	Sellers, Wm. & Co. —
Duplan Silk Corp. — Colored Insert	Seydel Chemical Co. — 13
DuPont de Nemours, E. I. & Co. —	Seydel-Thomas Co. —
—E—	Siggers & Siggers — 23
Economy Baler Co. — 33	Sirrine, J. E. & Co. —
Emmons Loom Harness Co. — 13	S. K. F. Industries —
Entwistle, T. C. Co. —	Sonoco Products — 12
—F—	Southern Distributing Co. — 33
Fafnir Bearing Co. —	Southern Ry. —
Fales & Jenks Machine Co. —	Southern Spindle & Flyer Co. —
Farish Co. — 20	Spinks, John D. — 33
Firemen's Mutual Insurance Co. —	Stafford Co. — 36
Ford, J. B. Co. — 16	Steel Heddle Mfg. Co. — 19
Franklin Process Co. —	Stein, Hall & Co. — Colored Insert
—G—	Sydnor Pump & Well Co. — 23
Garland Mfg. Co. —	—T—
General Electric Co. —	Tatum, Pinkham & Greey — 28
Georgia Webbing & Tape Co. —	Terrell Machine Co. —
Grant Leather Corp. — Colored Insert	Texas Cotton — 24
Graton & Knight Mfg. Co. —	Textile Mill Supply Co. —
Greist Mfg. Co. — 31	Thomas Grate Bar Co. — 28
—H—	Tolhurst Machine Works — 7
Hepworth, Jno. W. & Co. — 12	Tripod Paint Co. — 35
H. & B. American Machine Co. — 9	—U—
Hetherington, John & Sons Co. — 1	United Chemical Products Co. — 2
Hollingsworth, J. D. — 35	U. S. Bobbin & Shuttle Co. — 22
Hopedale Mfg. Co. —	U. S. Ring Traveler Co. — 30
Houghton, E. F. & Co. — Colored Insert	Universal Winding Co. — 30
Howard Bros. Mfg. Co. —	—V—
Hyatt Roller Bearing Co. —	Victor Ring Traveler Co. — 21
—J—	Van Lindley, J. Nursery Co. — 23
Jackson, Hill & Co. —	Vogel, Joseph A. Co. —
Jacobs, E. H. & Co. —	—W—
Johnson, Oliver & Co. —	Washburn Printing Co. — 11
Jordan Mfg. Co. — 22	Watson, L. S. Mfg. Co. — 35
—K—	Wellington, Sears & Co. — 28
Kaumagraph Co. —	Westinghouse Electric & Mfg. Co. —
Keever Starch Co. —	Whitin Machine Works — 2
Klauder-Weldon Dyeing Machine Co. — 21	Whitinsville Spinning Ring Co. — 16
—L—	Williams, J. H. Co. —
Ladew, Edward R. Co. — Colored Insert	Williams, I. B. & Son —
Langley, W. H. & Co. — 28	Wilts Veneer Co. — 16
Leslie, Evans & Co. — 28	Wolf, Jacques & Co. —
	Woods, T. B. Sons Co. — 10

Queer Incidents In The Textile Industry

(Continued from Page 23)

There was a young man and a young lady operating 20 looms each in the same alley. They decided to marry and asked out for a couple of hours. They left their looms running and when they returned their looms were still in operation.

A young man once asked if he could be absent for an hour. The overseer wanted to know why. Said he, "There is going to be a wedding in yonder church and I'd like to be present!"

The president of a mill in going through his mill noticed a spinning frame stopped and asked why it was idle. When he was told that it was stopped to doff he said, "Never let this happen again."

One mill has run night and day continuously for about twenty years.

One city has over 100 cotton mills within its limit.

Several mill men have built mills named after their own names but are not now with them.

One new mill made so much money that the entire cost of the mill was returned to the stockholders in three years' time.

Two other mills have made \$1,000 per day profit for a year.

Two mills purchased enough lug straps to last them ten years.

A cotton mill was started by colored men and to be owned, controlled and operated by colored operatives entirely. It was not a success. The same deal was tried by white men and to be operated by colored help entirely but it did not prove successful.

There is a large mill which has a smoke stack nearly 400 feet high. They say it takes two men and a small boy to see up to the top of it.

A mill was temporarily closed down on account of a shoaf of eels getting into the wheel pit.

Another mill was closed down because fish got into the feed pump intake.

In one of the largest New England textile centers there was such a shower of white moths that the walls of the mills and the business blocks were literally plastered with them. The mill operatives really went home under umbrellas to protect themselves from this awful pest. The ground was also covered with them so that the help had to wade through them.

In the Connecticut river valley several mills were flooded several feet in the first story. One superintendent literally inspected the first story of his mill in a boat paddling up and down the alleys.

In western Massachusetts there was such a heavy snowstorm the mills closed down early in the day to let the operatives get safely home. Even at that some had to tunnel their way home. The next morning they found their houses were buried in snow.

Several men have had fingers taken off by getting them caught in the gears and by showing how it was done get each another finger off.

A belt flew off hitting a man in such a way as to ring one of the loosened hooks into his nose like a bull's ring.

A mill man was selling some yarn to a shrewd buyer. He had 300 pounds to sell at 50 cents a pound and 700 pounds to sell at \$1 a pound. The buyer said "Let's see; you have some at 75 cents a pound and some at \$1 a pound; this averages 75 cents per pound. I'll take the entire lot." The mill man consented but found afterwards that he had lost \$100 by the shrewd deal.

A few mills have made the same mistake of blowing the whistle one hour too early and some one hour too late.

There are a few overseers who cannot read or write. Each is obliged to have a clerk to do their figuring.

One mill was found to be built on quick sand and one end of the mill started to sag.

A large textile city having over 100 cotton mills blow only two or three whistles in the morning. A small place having seven cotton mills blow about 50 whistles.

One man succeeded in cornering the cotton market for a few weeks.

Some years ago most mill officials received from a cotton broker a handsomely bound book with the title in gold as follows: "What I Know About Cotton." The rest of the book contained only blank pages!

Cotton has been so well manipulated and finished so much like wool linen and silk as to be sold as same.

One mill whistle was made so large that it was never blown but once.

The president of one of our largest colleges was offered the superintendency of one of our largest cotton mills. He refused the job! It is said that he was offered \$5,000 per year and much more than he was earning.

Glass has been spun into yarn and woven into cloth. A beautiful dress was once made of glass and was worn.

Stone, iron, steel, bark and almost anything which can be shredded into filaments has been spun and woven into cloth.

A fibre of cotton has been found to be of the same strength as that of a filament of iron of the same shape and size as that of the cotton fibre.

Cotton has been spun so fine that it was drawn out to over 1,000,000 yards to the pound.

A ton of raw cotton contains 160 pounds of water.

Over 100,000,000 fibres of cotton has been found in a pound of cotton.

Car wheels have been made of cotton.

A six-cord strand of common sewing thread has nearly 40,000,000 doublings.

In a colored goods mill the stock may pass through 30 processes and be handled 60 times over.

In an ordinary size mill it will take nearly 2,000,000 motions of the human hands to put the product through the various processes.

DIXON LUBRICATING SADDLE CO.

BRISTOL, RHODE ISLAND



Use Dixon Patent Stirrup Adjusting Saddles, the latest invention in Saddles for Top Rolls of Spinning Machines. Manufacturers of all kinds of Saddles, Stirrups and Levers.

WRITE FOR SAMPLES

Brighter Prospects

At long last, after three or more years of unprecedented depression, the cotton trade seems to be entering into a more bright period. True the trade has still a long way to go before it has thoroughly emerged from the depression, but it is now on the right road towards more successful times. Large adverse balances have yet to be wiped off before anything like financial prosperity can be assured, and it will take some really expert managing before the trade is out of the rut. One of the biggest causes for the improvement has been the short time working which has operated in the trade almost the whole of this year. The recommendations of the Master Cotton Spinners' Federation on curtailed hours have been loyally adhered to both by members and non-members of that organization. There has been much effort and hard work necessary to bring about this unanimity, and it would now be most unwise for any firms to break away from the movement. There is still a trying time before the trade, and it behooves all spinners to act together and support one another as much as possible through this period. Certain spinners have been agitating for an increase in the working hours to 30 per week. On the other hand, the Federation Committee believe that trade does not yet warrant such an increase in production and have two or three times during the past month appealed to firms to still adhere to the present organized short time working. This committee is sitting regularly watching the course of trade and is in a far better position to judge than the individual firms are. They have no desire to hamper the trade or to cause a yarn ramp, but as soon as they consider demand requires hours to be worked they will make a recommendation to that effect. Patience is still necessary to carry the industry successfully through the stormy waters of the past few years.—Oldham (Eng.) Journal of Commerce.

Consolidated Textile Co. Closes Office at Shawsheen Village.

Shawsheen Village, Mass.—The offices which the Consolidated Textile Co. maintained in the Merchants Building here for the controller's department of the company during the past year were closed today, in accordance with announcement made some time ago that the local offices would be removed on Oct. 15.

The removal throws more than 40 girls out of employment.

Henceforth it is understood the business of the concern will be carried on in its offices in New York, Providence, R. I., and Lynchburg, Va.

New England-Southern Mills Now At Capacity.

With all machinery from the Warner plant at Newburyport, and the LeRoy mill at LeRoy, N. Y., now installed in the Stark mill in Georgia, the New England-Southern Mills, for the first time since its

organization, nearly a year ago, is in position to run maximum capacity.

All plants of the company except the mill at Lisbon, Me., are now running full. The new Stark mill has profitable orders into the new on tire fabric. The new wide sheeting mill at Lowell is running full. The Pelzer and Tucapau printing and sheeting plants are not so well sold ahead.

For the first quarter of this year, the company showed a profit of \$236,000, but the second and third quarters, covering a period of severe depression, were not so successful.

The benefit of the complete equipment in the mills in Georgia and Lowell is expected to be reflected in the current quarter, which promises to show a margin of profit after depreciation and charges.

Textiles in Portuguese East Africa.

Within the past two months, American cotton prints have begun to secure a foothold in Portuguese East Africa. With the exception of some relatively small importations from the United States of unbleached drills used generally as sail for native river boats, this market has been monopolized by British, Dutch and German manufacturers. One or two brands of American heavy indigo prints and indigo drills which were well established in the union of South Africa during the war, had become known to the natives in this Province of whom great numbers regularly go to do the work in the Transvaal mines. The demand for these goods became so insistent that local merchants who have for years had British and Dutch connections, were reluctantly obliged to place orders in the United States, according to Consul Cross, Lourenco Marques. A list of textile importers in Portuguese East Africa may be obtained from the Textile Division, Bureau of Foreign and Domestic Commerce, Washington, D. C.

Argentina Good Market for Sweaters

The consumption of men's sweaters is not heavy, but there is a large demand for ladies' fancy sweaters and knitted jackets. The use of ladies' and childrens knitted dresses has increased during the past two seasons. The imported knitted articles sold in the country are largely fine goods and special or new designs. Knitted goods come under the category of articles for which tariff protection is sought by the local manufacturers, and the new customs tariff law of 1923 increased the fixed valuations on knitted wear by 60 per cent. The importations of knitted woolen underwear in 1923 were the largest of any year since the war, but the total has dropped below the pre-

Manchester Cotton Mills, Manchester, Ga., are now running full time. This plant is one of the Cal-loway chain, all of which are now quite busy. war figure.



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Greenwood, Miss.

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WHEATLEY & CO.

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Greenwood, Miss.

L. E. Montgomery E. D. Sumner

Montgomery & Sumner

Delta Staples and Benders.

Yazoo City, Miss.



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All Grades Oklahoma Cotton
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Oklahoma City, Okla.

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Strickland Cotton Mills, Moultrie Cotton Mills, Poulan Cotton Mills,
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THOMAS GRATE BAR COMPANY
BIRMINGHAM, ALA.

Cotton Goods

New York.—There was a moderate volume of business in unfinished cotton goods during the week, prices holding steady on print cloths, sheetings and some of the other similar cloths. Finished goods were not as active and prices showed considerable irregularity. New prices named on gingham showed that Southern mills are offering them cheaper than Eastern mills and it is expected that the Eastern gingham will be lowered.

Recent sales of heavy cotton for the automobile and other manufacturing trades have left mills on these goods comfortably sold ahead for the next 60 days. Bleached goods were dull and new percales prices have not yet been named.

There was a fairly good business in the finer goods. Prices on silk and cotton mixtures have held well and a very encouraging amount of business was done on sateens. Fancy rayon mixtures for spring have sold steadily.

Business on towels and bedspreads remained rather active. Orders from retailers and wholesalers came forward steadily, but in most cases stipulated early and spot delivery. Production both in the East and the South has continued to gain and business generally was seasonably active, although large contract business was noticeably absent.

Trading began to slow up toward the week in anticipation of the Government report on Saturday. Buying of print cloths and sheetings was light, but prices held up well.

Print cloths sold at 8½ cents early Saturday, but in the afternoon the best most mills would do was 8½ cents, with some mills holding for ½ cent higher. Sales of 68x72s were made at 9½ cents in small lots. There was not much business doing in sheetings, drills or osnaburgs and prices held about steady.

Several sales of spot broadcloth were reported in the market, but generally prompt and nearby goods were not plentiful, reports indicated. The market firmed for jacquard tassahs and crepes were available on contract at the lowest figures noted the week before. Combed lawns did practically nothing and other fine goods were neglected. The mills quoted domestic broadcloth 128x68s 22½ cents; there were sales of spots at 23½ cents. A sale of the same count of imported was made at 25 cents and there were bids out for several other lots, but they could not be found readily.

The week was reported quiet in the cotton duck section and the orders placed were inclined to be

small and for nearby delivery. Mills quoted their best grade staple filling at 23 cents and double filling 24 cents. The basis for army duck is 51½ a pound for later delivery and 40 cents a pound for numbered duck. Sales of the latter were made on the basis of around fifty off the list for heavy weight odd widths.

There was moderate inquiry for fire fabric during the week and several of the fire companies placed business. The price situation ruled unchanged with carded peeler American cords quoted 52 cents to 54 cents, square woven 50 cents to 52 cents, lenos 52 cents to 55 cents and brakers the same as squares. There is a good deal more business potentially to be placed.

The John V. Farwell Company Chicago, say in their weekly review of trade: Wholesale dry goods business is at present feeling the influence of the approaching election uncertainty in its effects upon advance orders for spring. Road men report, however, that retailers are holding their spring commitments until after November 4 and covering only immediate needs. Road sales are ahead of last week, both in volume and number of orders, but do not equal last year's for the corresponding week. Several leading lines of crashes are sold up to January and placed at value by manufacturers. Colored fancy linens are active in preparation for Thanksgiving linen sales. Buyers have been in market in larger numbers than during the corresponding week of last year. Collections show improvement.

Cotton goods prices were as follows:

Print cloths, 28-in., 64x64s	7
Print cloths, 28-in., 64x60s	6½
Print cloths, 27-in., 64x60s	6½
Gray goods, 38½-in., 64x64s	9½
Gray goods, 39-in., 68x72s	9½
Gray goods, 39-in., 80x80s	12½
Brown sheetings, 3-yard	14½
Brown sheetings, 4-yard	11½
Brown sheetings, stand.	15½
Tickings, 8-ounce	26
Denims	20
Staple gingham, 27-in.	12½
Kid finished cambrics	9¼a10¼
Dress gingham	18½a21
Standard prints	10

Italian Mills Active.

A good domestic and export demand has enabled the Italian cotton mills to maintain a healthy activity. The price of cotton yarn has been reduced.—Cable from Commercial Attache H. C. MacLean, Rome.

Southeastern Selling Agency LESSER-GOLDMAN COTTON COMPANY

OF ST. LOUIS, MO.

P. H. PARTRIDGE, Agent, Charlotte, N. C.

Extra staples, and good 1 1-16 and 1½ cotton from Arkansas, Oklahoma, and Texas, and Memphis territory.

The Yarn Market

Philadelphia, Pa.—There was very little change in the yarn markets during the week. Prices held very steady, however, and were firmer on the eve of the cotton report on Saturday. After the effect of the report is discounted, better business in yarns is anticipated. Dealers here point out that the stock of yarns in this market have been so reduced that they cannot affect prices. They state that recent concessions allowed on some combed numbers were due to competition to secure business rather than large stocks of yarn. A renewed demand at any time would quickly absorb stocks here and if dealers here began to fill in their stocks to the size normally carried, it would require considerably more yarn than the mills now have in stock.

The demand for carded knitting yarns was somewhat better during the week and an encouraging volume of business was done, mainly for spot and prompt shipment. There was also a better market for duck yarns and sales reached fairly large proportions.

Combed yarns continued to move only in a limited way but have gained some ground in the past two weeks. Sales of the coarser numbers have been more frequent than of the finer counts and stocks have been reduced to a low point.

The amount of business done in all yarns for the past two weeks has increased, buyers have moved very conservatively in regard to forward business and it is believed that the potential demand is large enough to result in a much better market when the conditions in the cotton market become more settled. Mill men are more optimistic and a great many of them are now running their plants at full time, although prices generally are still very unsatisfactory.

Yarn quotations in this market were published as follows:

Two-Ply Chain Warps.			
2-ply 8s.....	41 a	2-ply 26s.....	47½a48
10s.....	41½a42	2-ply 30s.....	49½a50
2-ply 16s.....	43½a44	2-ply 40s.....	55½a56
2-ply 20s.....	44 a45	2-ply 50s.....	64 a
2-ply 24s.....	47 a48		
Two-Ply Skeins.			
8s.....	39 a	40s.....	53½a54
10s to 12s.....	40 a41	40s ex.....	58 a50
14s.....	42 a	50s.....	64 a
16s.....	43 a	60s.....	72 a73
20s.....	44 a45		
24s.....	46½a		
26s.....	47½a48		
30s.....	49 a50		
36s.....	52 a		
Part Waste Insulated Yarn.			
6s, 1-ply.....	35 a	12s, 2-ply.....	38 a
8s, 2, 3 and.....	35½a	20s, 2-ply.....	43½a
4-ply.....	35½a	26s, 2-ply.....	47 a
10s, 1-ply and.....	37 a	30s, 2-ply.....	49 a
2-ply.....	37 a		
Duck Yarns.			
3, 4 and 5-ply.....	39 a	16s, 4 and 5-ply.....	44 a
8s.....	39 a	20s.....	44½a45
10s.....	40 a		
12s.....	41 a42		
Single Chain Warps.			
10s.....	41½a	24s.....	47 a

12s.....	42 a	26s.....	48 a
14s.....	42½a	30s.....	49½a50
16s.....	43 a	40s.....	56 a
20s.....	44 a		
Single Skeins.			
6s to 8s.....	40 a	20s.....	44 a
10s.....	41 a	24s.....	45 a
12s.....	42 a	26s.....	47 a
14s.....	42 a	30s.....	49 a50
16s.....	43 a		
Frame Cones.			
8s.....	39 a	22s.....	43 a
10s.....	39½a	24s.....	44 a
12s.....	40 a	26s.....	45 a
14s.....	40½a	28s.....	46 a
16s.....	41 a	30s.....	47½a48
18s.....	41½a	30s tying in.....	46 a
20s.....	42½a	40s.....	52 a53
Combed Peeler Skeins, Etc.			
2-ply 16s.....	55 a56	2-ply 50s.....	70 a
2-ply 20s.....	57 a58	2-ply 60s.....	75 a
2-ply 30s.....	60 a62	2-ply 70s.....	85 a
2-ply 36s.....	60 a65	2-ply 80s.....	95 a
2-ply 40s.....	65 a67		
Combed Peeler Cones.			
10s.....	50 a	30s.....	60 a
12s.....	51 a	32s.....	62 a
14s.....	52 a	34s.....	64 a
16s.....	52½a	36s.....	65 a
18s.....	53 a	38s.....	68 a
20s.....	53½a	40s.....	70 a
22s.....	54 a	50s.....	75 a
24s.....	54½a	60s.....	80 a
26s.....	55 a	70s.....	90 a
28s.....	57 a	80s.....	96 a
Carded Peeler Thread Twist Skeins.			
20s, 2-ply.....	52 a	36s, 2-ply.....	62 a
22s, 2-ply.....	53 a	40s, 2-ply.....	64 a
24s, 2-ply.....	55 a	45s, 2-ply.....	69 a
26s, 2-ply.....	58 a	50s, 2-ply.....	74 a
Carded Cones.			
10s.....	47 a	22s.....	53 a
12s.....	48 a	26s.....	55 a
14s.....	49 a	28s.....	57 a
20s.....	52 a	30s.....	59 a

One Cotton Spinning Mill in Australia.

Australia has one cotton spinning mill equipped with about 20,000 spindles which is operated on an average of 20 hours daily throughout the year. It is located at Wentworthville, about 26 miles from Sydney, and has been running slightly more than a year. Vice Consul Coates, Melbourne, advises the Department of Commerce. Its output of yarn is sold to a small weaving mill and a hosiery plant in Sydney. The latter produces cotton, silk, artificial silk, and woolen hosiery, as well as mixtures, which are marketed direct from the manufacturer to the retailer.

Argentine Wool Exports.

Argentine wool exports for the year ended September 30, 1924, amounted to 286,000 bales, of which 30 per cent went to Germany, 24 per cent to Great Britain, 20 per cent to France, and 10 per cent to the United States. Trade Commissioner Brady, Buenos Aires, cables the Department of Commerce. The new clip is beginning to arrive on the market. Prices are firm. The 1924-1925 clip is estimated at about 300,000 bales, or 10 to 25 per cent greater than that of the previous season. Present carryover stocks are said not to exceed 10,000 bales.

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the fibres of the yarn—cotton, woolen or worsted which ever it may be—and prevents waste of good materials by eliminating flyings.

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We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern Textile Industry.

WANT POSITION as roll coverer. Have had 20 years' experience and can give excellent references. No. 4324.

WANT POSITION as overseer spinning. Overseer for 20 years on all counts and colors, both carded and combed, from various stocks. Can get results. Would consider \$33 weekly, with free rent. No. 4327.

WANT POSITION as superintendent. My experience covers mills in both North and South on a wide variety of goods and yarns. Excellent references to show past record of unusual achievement. No. 4328.

WANT POSITION as superintendent of cotton yarn or good mill. Man of unusual ability and can give references to show excellent past record. No. 4329.

WANT POSITION as overseer spinning or night superintendent. Qualified by experience and training to handle room on efficient basis. A-1 references. No. 4330.

WANT POSITION as overseer weaving. My experience covers wide variety of fancy goods, including silk mixture. First-class references as to character and ability. No. 4331.

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WANT POSITION as superintendent or overseer weaving. Practical, experienced man on many different fabrics. Long and satisfactory record as overseer and superintendent. Best of references. No. 4333.

WANT POSITION as overseer cloth room. Now employed, but wish larger place. Long experience. Best of references. No. 4334.

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WANT POSITION as superintendent, prefer yarn mill. Now employed but can change on short notice. Best of references. No. 4336.

WANT POSITION as superintendent, or overseer carding, spinning and twisting. Experienced man with excellent past record. Good references. No. 4337.

WANT POSITION as overseer carding or spinning, or both. Now employed, but want larger place. First-class references to show character and ability. No. 4338.

WANT POSITION as overseer weaving or assistant superintendent. Have had 19 years as overseer on all grades of yarn and cloth. Excellent references. No. 4340.

WANT POSITION as overseer carding or spinning or superintendent of yarn mill. Now employed but can change on short notice. Can get quality production at low cost. Best of references. No. 4341.

WANT POSITION as overseer carding, 20 years as overseer on all classes of work. Now employed. Age 40, married, have family. Good references. No. 4342.

WANT POSITION as overseer weaving. Experienced on wide variety of fabrics, both plain and fancy. Have excellent record and can give first-class references as to character and ability. No. 4343.

WANT POSITION as superintendent or overseer carding or spinning room. Familiar with fine and coarse numbers and know how to get satisfactory results. Good references. No. 4344.

Development of the High Speed Loom

(Continued from Page 7)

looms by reason of the smaller number required, and the use of the space saved by using fewer looms, or

2—A greater yardage from the same number of looms as before. We believe, too, that there will be a saving made in weaving cost per yard.

Restoration of French Mills Nearly Finished

Los Angeles.—According to J. Rozendale, son of the Dutch consul at Lille, the restoration of the textile manufacturing plants in northern France, which had been destroyed by the Germans during the war, has now been almost completed. Rozendale is making a tour of this South. He is now stopping at the facturing industry and has visited the principal mills in the East and country to study the cotton manufacturing industry.

"About a third of the textile production and at least 95 per cent of the spinning of flax in France is being carried on at Lille," said Mr. Rozendale.

During the war the Germans who occupied the section where Lille is situated systematically destroyed every factory in the area. They demolished the machinery to obtain the copper that formed a considerable part of the mill equipment. At the close of the war only a single cotton mill remained intact at Lille. This had been operated by the Germans for their own needs. Rehabilitation started as soon as the hostilities has ceased, although some of the smaller factory owners were unable to reestablish themselves owing to lack of funds. Most of the larger concerns have resumed operations.

"Astonishing progress has been made in other lines and a large part of the damage done to the agriculture districts has now been repaired due to the hard work of the peasant heard of in France and in the country laborers. Unemployment is unheard of in France and the country has been unusually prosperous since the war. However it is possible that a part of this prosperity is more apparent than real on account of the shattered state of our exchange.

Italian Knitting Mill Workers.

There are 216 knitting mills operating in Italy at present, which in July, 1923, employed 25,193 operatives—an increase of 42.4 per cent over the number of workers in 1920, according to official statistics, the Department of Commerce is informed by Assistant Trade Commissioner J. Allen Palmer, Rome. The improvement has occurred almost entirely in the larger mills, the smaller establishments having undergone little change during the last few years. About 90 per cent of the operatives are girls and women.

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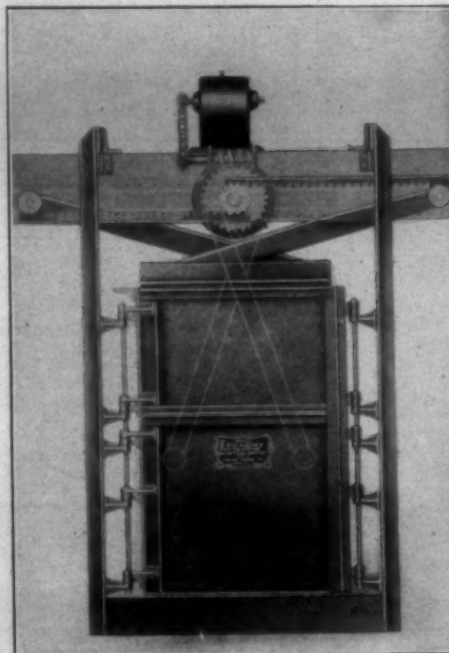
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